NORTHEAST MARKETING ISSUE
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Natural Enemies Not an Answer to Gypsy Moth Control

Insecticides Only Means of Halting Invasion, USDA Says

WASHINGTON — State and federal pest control agencies are convinced that insecticidal spraying in the areas newly invaded by the gypsy moth is the only sound method science has so far devised to guard the nation's forests from further invasion and destruction, the U.S. Department of Agriculture said recently.

Insects and diseases that attack the gypsy moth help to reduce its numbers, but they won't eradicate this dangerous forest and shade-tree pest or prevent its spread, USDA said.

"Although insect parasites of the gypsy moth have become established in the Northeast and help to exercise some control of this pest, destructive defoliation of trees by gypsy-moth caterpillars continues over large areas every year," Emory D. Burgess, director of USDA's Plant Pest Control Division, said.

State and federal agencies have been encouraging the build-up of natural enemies of the gypsy moth in New England for more than 50 years. Despite this effort, Mr. Burgess points out, the moth has spread since 1953 to about nine million previously uninfested acres in southeastern New York, northeastern Pennsylvania, and northern New Jersey.

As a result, USDA's Agricultural Research Service and the three states concerned are conducting a large-scale DDT spray program to halt further spread of the insect and to eradicate

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Campaign Against Present Farm Law Grows as Benson Supports New Plan

By JOHN CIPPERLY
Croplife Washington Correspondent

WASHINGTON — Step by step, Ezra Taft Benson, Secretary of Agriculture, is accelerating his campaign against the present farm law. The latest drive came when he made public a letter to Rep. Harold Cooley (D., N.C.) and chairman of the House Agriculture Committee, in which the Secretary expressed his disapproval of the flexible price support provisions of the existing farm law with its rebound possibilities of pushing basic commodities to 90% of parity. He recommended to Rep. Cooley that consideration be given to a radical change in the flexible price support provisions of the present law.

The increasing tempo of the secretary's drive on the farm law exhibits two conditions: (1) the disorganization of the farm bloc in Congress. Here the previous adherents of the basic farm commodity groups stood firm against any revision of the farm law which would imperil their battleground of high price support levels for the basic commodities of wheat, corn, cotton, tobacco, peanuts and rice. (2) The strong position of the Secretary at the White House, where many of the Benson policy proposals have found firm support.

Up to this time there has been little doubt of where the Benson policies ultimately were leading, but Mr. Benson has until recently held back open public attacks on the flexible price support provisions of the law.

During his more than four years in office, Mr. Benson has slowly been arguing his case before the farmers themselves and to the public in general. During this time he has seen the solid rock of the farm bloc foundation shatter into splinters which are no longer discernible as a bloc.

Ever since the Steagall amendment has been in operation, with its attraction of high rigid price supports, Congress has been able to defeat any proposals to drop its wartime purposes and to return to the earlier farm act with its lower level of price support for the basic commodities. The farm bloc has been

(Continued on page 24)

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Industry Leaders Feel Benson On Right Track But Pace Is Off

By JOHN CIPPERLY
Croplife Washington Correspondent

WASHINGTON — Some industry leaders here are saying privately that Ezra Taft Benson is moving in the right direction to solve some of the knotty farm problems, but that his problem is one of pace.

They feel that at the bottom of current agricultural ills is the problem of farmers on small, uneconomic farms, whose high per unit cost of production does not permit them to compete in the marketplace without government subsidy.

The Benson philosophy must be described as one to get these farmers off farms, where they cannot sustain profitable production under a low price support level.

Mr. Benson says in a recent letter to the House Agriculture Committee that he wants complete flexibility of price support determination between zero and 90% of parity for the basic commodities. He offers an alternative of 60 to 90% of support for these basic commodities. (See accompanying story.)

Congress is unlikely to grant him full discretion as to the level of price support.

But until some forthright politician is ready to grasp the impossible nettle and insist that the farm program solution must be based on farm costs—and not on a support program which keeps inefficient farmers in production at high rigid price support levels—then there is no likelihood that the nation can escape from high price support programs.

The farm problem is not entirely an economic one. It is a social problem. It is no different than that

(Continued on page 8)

July 31 Set as Bidding Deadline For Potash Lease

WASHINGTON—July 31 has been set as the bidding deadline for potash mining lease of 1,840 acres of public land in Eddy County, New Mexico, the U.S. Department of Interior has announced.

Sealed bids are to be submitted by 2 p.m. on that date to the director of the Bureau of Land Management. The bureau said that a minimum of $250,000 would be acceptable for leasing the entire 1,840 acres.

Announcement that the area would be available for potash development lease was made in mid April by the interior department (see page 1 of the April 22 issue of Croplife).

The area is near Carlsbad, and the lands are part of the 4,160 acre potash reserve established by the government in 1939 and enlarged eight years ago.

Central Farmers Holds Groundbreaking For Idaho Plant

GEORGETOWN, IDAHO—Groundbreaking ceremonies for a $7½ million phosphate plant, which is part of a $14½ million development, were held near here June 4 by Central Farmers Fertilizer Co. On hand for the event were Robert E. Smylie, Idaho governor, and John Latner, president of Central Farmers, which is owned by 16 regional cooperatives.

The plant will be turning out rock phosphate this fall and production of calcium metaphosphate is expected to start late in 1958. The plant will use the electric furnace method to produce high analysis phosphate fertilizers.

Phillips Pacific Plans Open House At Coulee Plant

BARTLESVILLE, OKLA.—Phillips Pacific Chemical Co. will be host June 15 at an open house at its new Coulee ammonia plant on the Columbia River.

The plant, seven miles southeast of Kennewick and Pasco, is designed to produce 200 tons per day of anhydrous ammonia.

The plant is jointly owned by Phillips Petroleum Company and the Pacific Northwest Pipeline Corporation. It is operated by Phillips Chemical Co., a wholly owned subsidiary of Phillips Petroleum.

The plant's product will be added to fertilizer marketing now carried on throughout the Northwest by Phillips Petroleum Co.'s sales department, which has division offices in Spokane and Salt Lake City.

Anhydrous ammonia is also produced in two of Phillips Chemical Co.'s plants in Texas. The Cactus plant, near Etter in the Panhandle, and the Adams Terminal plant, near Houston, have daily capacities of 525 tons each. At the latter location the company also manufactures ammonium sulfate fertilizer. Phillips produces ammonium nitrate fertilizer and nitrogen solutions at the Cactus plant.

National Plant Food Institute Convention

WHITE SULPHUR SPRINGS, W.VA.—More than 1,000 representatives of the fertilizer industry and agricultural leaders are expected at the annual convention of the National Plant Food Institute, which opens June 10 at the Greenbrier here. Nationally known leaders in the fields of agriculture, banking and government will appear on the program. A feature of the June 10 program will be a panel discussion on "How Big is the Fertilizer Market?" Complete details of the convention will appear in the June 17 issue of Croplife.

Corn Contests Teach Good Methods Of Production for High-Profit Yields

Corn yield contests are conducted in many states, and although each may emphasize something different, all draw farmers into the competition and show them best production practices for profitable yields.

Some of the practices used and the yields obtained in the state contests are summarized in the current issue of the Potash News Letter for the Midwest, published by the American Potash Institute's Lafayette, Ind. office.

Perhaps the oldest content is that in Indiana, started in 1914. Of 4,014 growers who completed their five-acre records last year, 503 produced more than 150 bu. an acre, and 1,533 turned out between 125 and 150 bu.

The average winning yield by five year periods in the Indiana contest are 107 bu. in 1914-1918, 123 bu. in 1919-1923, 134 bu. in 1924-1928, 145 bu. in 1929-1933, 161 bu. in 1934-1938, 176 bu. in 1939-1943, 171 bu. in 1944-1948, 192 bu. in 1949-1953 and 222 bu. in 1954 to 1956.

A 200 bu. corn club started in Indiana three years ago now has 12 members.

The Wisconsin Pacemaker Club was established by the University of Wisconsin to encourage more efficient output. Participants in the club are given a prescription for a 100 bu. yield.

The average yield for the pacemakers was 124 bu. an acre in 1952, 102 bu. in 1953, 114 bu. in 1954, 93 bu. during a very dry 1955 and 113 bu. in 1956. Meanwhile, the average statewide yield during those years ranged from a low of 50 bu. to a high of 65 bu.

In Minnesota the X-tra Yield Contest is partly designed to measure the increase possible from using good production methods. Last year a Goodhue County grower established a new record by turning out 161 bu. an acre on his x-tra yield plot and 37 bu. an acre on the check plot—a gain of 124 bu. The average gain on the x-tra yield plots for 266 entrants in the contest was 25.8 bu. an acre.

In the Reach for the Top Corn Yields contest in Nebraska last year, 39 farmers on non-irrigated land averaged 73 bu. an acre, with the top yield hitting 132 bu. In the irrigated section of the contest 549 farmers averaged 125 bu. an acre, with a high of 208 bu.

This year's Nebraska program is called Better Corn—More Profits, and more emphasis is being placed on keeping accurate records to obtain production costs per bushel.

In the Kentucky Corn Derby last year the 10 winners in the one acre division ranged in yields from 155 b per acre to 187 bu., while yields the five acre plots ran from 126 b to 181 bu.

And, still the champ—Lamar Ra liff, the then 16-year-old Boonevill Miss. farm youth, who clocked with a fabulous yield of 304 bu. acre on his plot in 1955.

Nitrogen Conference Planned in Minnesota

ST. PAUL—A Minnesota nitroge conference will be held in 1958 unde the sponsorship of the Minnesot Branch of the Middle West Soil Im provement Assn., in cooperation wit the fertilizer industry and the Un versity of Minnesota.

Decision to plan the conference wa made at a recent meeting of th MWSIC branch executive group an other industry representatives. Th suggested date is late February o early March.

Named to a planning committee fo the conference are M. W. Mawhinney Smith-Douglass Co., chairman; Proc tor Gull, Spencer Chemical Co. James Rainey, Allied Chemical & Dy Corp.; H. E. Gloege, Phillips Chemica Co.; Leo Orth, Sinclair Chemical Co. John Wylie, Central Farmers Ferti izer Co.; J. D. Campbell, Olin Mathie son Chemical Corp.; W. H. Kircher the Farmer; William P. Martin, Uni versity of Minnesota, and Z. H. Beers Middle West Soil Improvement Com mittee.

Limited Funds Available For Hopper Control

STATE COLLEGE, N.M. — Th $50,000 appropriated by the New Mexico legislature to help ranchers fight grasshoppers on rangeland i New Mexico in 1957-58-59 will be al located on a first-come, first-served basis, according to the New Mexico Grasshopper Board.

The board, appointed by Gov. Ed win L. Mechem, met in Santa Fe re cently to consider the procedure fo handling requests for local assistance Under the control program ranchers pay one-third of the cost and th state and federal governments each contribute similar amounts.

Serving on the new board are ranchers, W. W. Denton, Datil; and H. C. Gilliland, Clayton. Dallas Rier son, director of the State Department of Agriculture at New Mexico A&M College, is chairman.

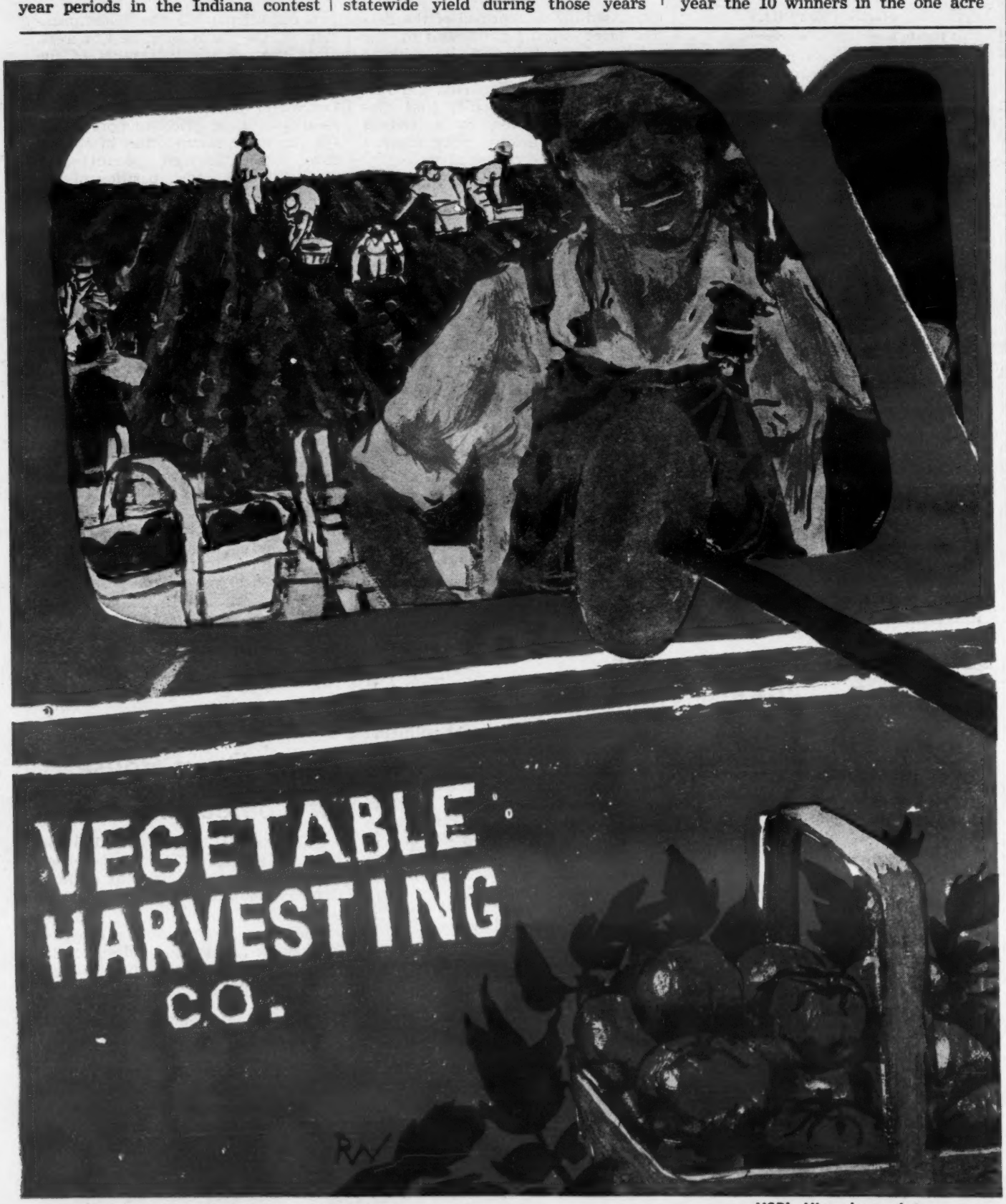
Last year the board said the state's share of the expense on grasshopper control on 670,000 acres of rangeland amounted to $117,520. Fall surveys show possible grasshopper infestations on two and a half million acres of rangeland in the state this year. The board conservatively estimates that the state's share for grasshopper control on rangeland in 1957 will amount to over $140,000.

Control Officials Schedule Meeting

CLEMSON, S.C. — The annual meeting of the Association of American Fertilizer Control Officials will be held at the Shoreham Hotel, Washington, D.C., Oct. 18, B. D. Cloaninger, Clemson, secretary-treasurer, has announced. A meeting of the States Relations Committee will be held at 8 p.m. Oct. 17.

TO LECTURE IN BELGIUM

AMES, IOWA—Dr. Don Kirkham, professor of agronomy and physics at Iowa State College, has been granted a 9-months' leave of absence from the college to lecture and conduct research in Belgium. He will accept a Fulbright lectureship at the State Agricultural University at Ghent, Belgium. Under a separate grant from the John Simon Guggenheim Memorial Foundation he will also conduct "studies of physical properties governing fertility of intensely cultivated soils in Belgium."



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Fertilizer Boosts Alfalfa Output on Low Fertility Soil

STILLWATER, OKLA. — The possibility of high quality forage production in southeastern Oklahoma has prompted Oklahoma A&M scientists to conduct an intensive study of alfalfa production and maintenance practices essential for high production on low fertility soils typical of this area. Actually, the land receives an average of 45-50 inches of rainfall a year and has a frost-free period of 200-220 days.

The area is characterized by the mountainous topography of the Ouachita Highlands, and most farming operations and improved pastures are restricted to the valleys and gentle slopes. Recommended soil and water conservation practices have to be considered in this type of farming.

The soil is moderately deep, medium to coarse textured and well drained. However, due to the heavy rainfall, the soils have been leached of their acid-neutralizing elements until more than 75% of the soils need agricultural limestone for such crops as alfalfa.

Research information indicates available soil phosphorus to be the first limiting factor on this soil type following adequate liming, reported Dr. J. Q. Lynd, Oklahoma A&M agronomist.

The addition of superphosphate (0-20-0) to supply 32 lb. of available phosphorus per acre resulted in 1,606 lb. per acre increase over the non-treated plots for the three years of testing. The addition of five tons of manure alone, did not increase yields as much as low phosphate fertilization, the agronomists pointed out.

"This indicates the low phosphorus content of these soils and the tremendous response of crops to the element," Dr. Lynd said.

"Supplying enough muriate of potash to furnish 72 lb. of potassium per acre resulted in substantial increase in hay yields when adequate phosphorus was supplied," he said. "Also, potassium deficiency symptoms were apparent on the phosphorus treated plots that received no potassium fertilizer."

Alfalfa growing in the plots receiving phosphorus and potassium but no borax, exhibited marked boron deficiency symptoms. The terminal leaves were characterized by a bronze-yellow chlorosis with very short internodes.

The highest yields during the entire three-year experiment were obtained from plots which received 64 lb. of phosphorus, 72 lb. of potassium and 10 lb. of borax per acre. These experiments averaged 7,987 lb. of hay per acre for the three-year test. This figure is more than double the check plots which averaged 3,727 lb. of hay for the same period.

North Carolina Tonnage

RALEIGH, N.C.—April fertilizer consumption in North Carolina amounted to 488,082 tons, a gain from 418,843 tons in April, 1956, the North Carolina Department of Agriculture has reported. Sales in the first 10 months (July-April) of this fiscal year totaled 1,239,090 tons, compared with 1,325,922 tons in a comparable period a year earlier.

HEAVY INFESTATION

WACO, TEXAS—In most parts of Central Texas farmers are finding cotton insects out in full force. Charles Parencia, in charge of the Waco Cotton Insects Laboratory, predicts a heavy infestation of insects. He said thrips, overwintered boll weevils and cotton fleahoppers are to be found in increasing numbers throughout the area.

Gibberellic Increases Soil Microorganism Activity, Researchers Say

CORVALLIS, ORE. — Gibberellic acid, the plant-growth booster, can also speed up the process by which soil microorganisms unlock plant nutrients and add nitrogen from the air to the soil, according to research at the Oregon State College Agricultural Experiment Station. Small doses of gibberellic acid added to soil increased the general activity of soil microorganisms, report K. C. Lu, C. M. Gilmour, and W. B. Bollen, bacteriologists at the college.

However, they emphasized that more study is necessary before they will know if the use of gibberellic acid to make soil more fertile will be commercially practical.

In their experiments, the three scientists found that the microorganisms started decomposing giberellic acid a few days after it was added, and that it was several weeks before the material disappeared completely. During this time, the decomposition of soil organic matter and other added organic materials was speeded up. This should increase the release of plant nutrients into the soil, the scientists say.

The acid also seemed to stimulate the nitrogen-fixing bacteria naturally present in soil, resulting in significant increases in amount of nitrogen being added to the soil from the air.

AUSTRALIAN VISITOR

SAN FRANCISCO—C. E. Tuttleby, chief examiner of the Australian Department of Civil Aviation, has arrived in California to begin a two-month fact finding tour of the U.S. to learn new methods and other information about agricultural aviation. Mr. Tuttleby spent two days with the Agricultural Aircraft Assn., Inc., in Fresno, Cal., before proceeding to other states. He is expected to give a report on his findings before his return to Australia.

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INSECT AND PLANT DISEASE NOTES

Alfalfa Aphids Active In New Mexico

STATE COLLEGE, N.M.—(Week ending May 25)—Spotted alfalfa aphids are light to heavy and spotty, depending on control measures, in Hidalgo, Luna, Dona Ana, Eddy, Chaves and Lea counties. Infestations are generally light in Socorro, De Baca and Valencia counties. Cowpea aphids are causing severe damage to cotton seedlings in Hidalgo, Luna and Dona Ana counties. Terminal growth and the first two true leaves of infested plants are severely stunted.

Thrips are light to medium on cotton in Dona Ana County. Cabbage loopers are medium to heavy on lettuce in Bernalillo, Valencia and Sandoval counties. Most growers are controlling them. Thrips are light to medium in onions depending on control measures in Dona Ana County. Woolly apple aphids are light to medium on apple trees in Lincoln, Valencia, Sandoval and Rio Arriba counties.

Clover mites are light to medium in apple orchards in Valencia, Sandoval and Rio Arriba counties. Green peach aphids are generally medium to heavy on untreated trees in the state. They are also heavy on plums in spotty infestations in Sandoval and Bernalillo counties. Rusty plum aphids are heavy but spotty on plums in Sandoval and Bernalillo counties. Coastal aphid infestations are generally light to medium on pecan trees in Eddy County.—John J. Durkin.

Insect Activity Light in Indiana

VINCENNES, IND.—(Week ending June 4)—In general, insect activity during the past 7 days has been light on both apples and peaches. Codling moth adults are still emerging. Both pupae and larvae can still be found on areas of the tree trunks that are shaded, but emergence cages show that daily adult emergence has been dropping off from a peak reached May 6 to 13, especially since May 20. Capture of adults in bait traps has been light since May 16. Weather conditions have not been favorable for codling moth activity and first brood injury to date has been light, however entries can be readily found where coverage has not been adequate. Growers still need to maintain protection for late first brood activity, especially when warmer temperatures prevail.

Infestations of European red mites and two spotted mites are light. However, populations of both species are gradually increasing where control measures have not been applied so that heavy infestations are likely to develop when favorable weather prevails.

A heavy capture of Oriental fruit moth adults was taken in bait traps in one orchard in southern Knox County on June 3. These were probably first brood adults. In general first brood twig injury increased over that present during the past 3 years. Second brood larvae are expected to start hatching about June 10.—D. W. Hamilton.

Orchard Pests Active in Massachusetts

AMHERST, MASS. — (June 4) — Apple scab is breaking out on leaves and on fruit in poorly sprayed orchards and where timing was off. It is time for the third cover spray and the control of codling moths in many orchards.

American raspberry beetles are very active feeding on raspberry leaves and laying eggs in the blossoms. Worms which hatch from these eggs will cause wormy raspberries later. Two-spotted mites are serious in some strawberry beds.—C. J. Gilgut and O. C. Roberts.

Cotton Insects Noted in Arizona

PHOENIX — Bollworms were observed in Yuma County fields showing only a few squares. One field near alfalfa, showed 16 squares out of 100 punctured by lygus and an average of 16 lygus per 100 sweeps. Thrips are continuing to bother cotton in Pinal County.

In Maricopa County thrips continue to injure many fields, and lygus populations are high in alfalfa. Thrips and aphids continue to give cotton a test in one area of Cochise County. Thrips are a problem in Pima County, with counts ranging from 9 to 32 per plant. Beet armyworms and aphids also are present in many fields.—J. N. Roney.

Maryland Reports Alfalfa Insects

COLLEGE PARK, MD.—(May 31) —Second growth alfalfa in Queen Anne's County is heavily infested with pea aphids and in one field with sparse stubble there were spider mites. In central and western Maryland there is still danger from alfalfa weevil after the first cutting is made. In Anne Arundel County hungry adult weevils are swarming to lima beans and clover in a lawn. Potato leafhoppers have been found only in small numbers on alfalfa.

Armyworms are disappearing from grain in Queen Anne's County where they appeared early and in serious numbers. Corn may still be damaged by armyworms. Cutworms are causing light damage to corn.

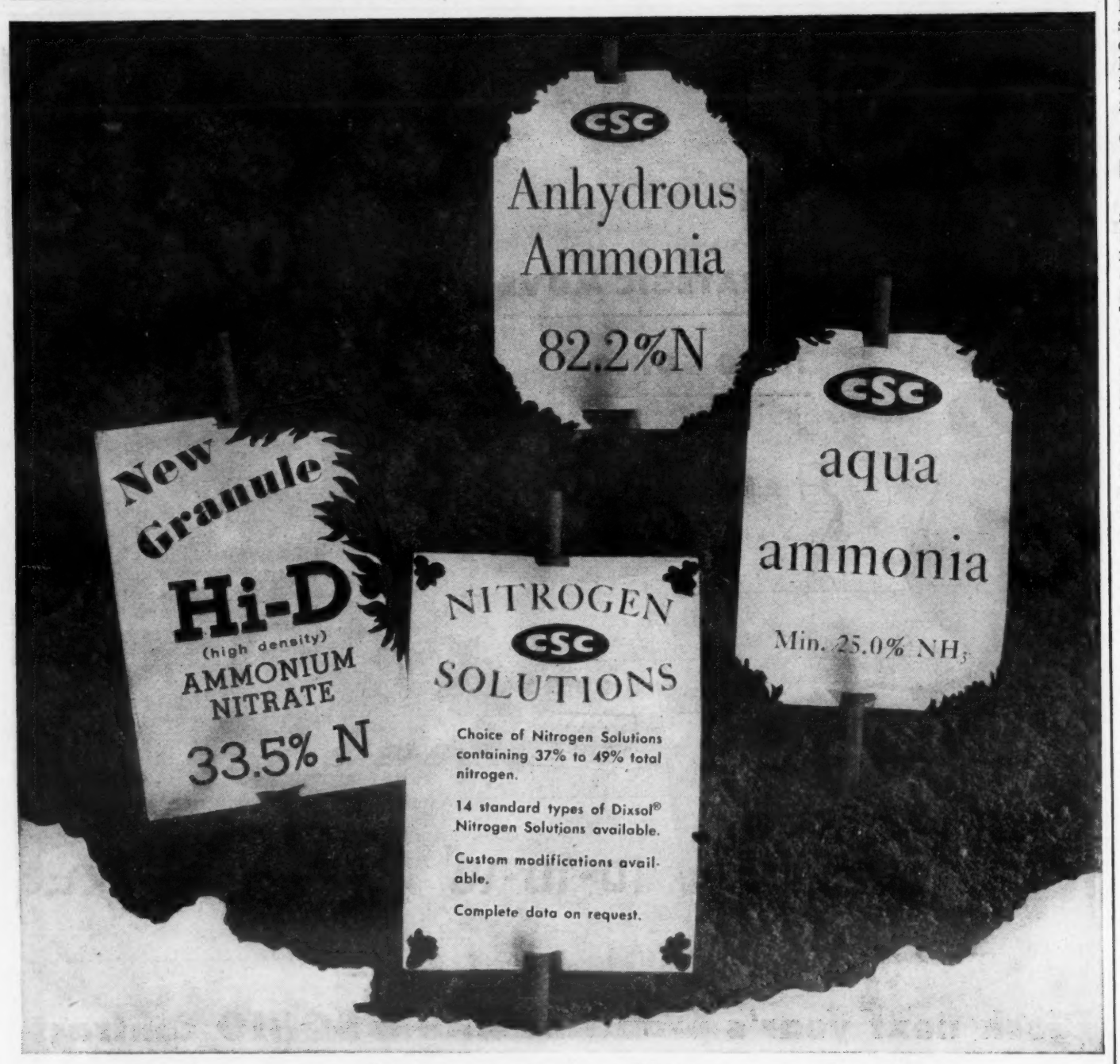
Wheat in Talbot County is infested by European corn borer, infested stems are marked by white heads. First and second instar larvae may be found inside and half way up the stems.

The Hancock Laboratory reports that codling moths began hatching May 28. European red mites are increasing in some orchards. Leaf miner larvae have reached the last instar. An outbreak of the periodical cicada, Brood 14, is occurring on peach and apple near Hancock.—Theo. L. Bissell and Wallace C. Harding, Jr.

Grasshopper Hatch Slow in Kansas

MANHATTAN, KANSAS—(Week ending June 1)—Grasshoppers are slow hatching this spring. Counts of small grasshoppers along fence rows in the central part of the state range from 7 to 27 grasshoppers per square yard.

Variegated cutworms can be found in central Kansas counties feeding on the new growth for the second crop



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alfalfa. Barley fields should be tched closely for armyworms cut- g heads. Some blister beetles can found in alfalfa fields. We can pect many blister beetles this year lowing the past several grasshop- years.—David L. Matthew and ll E. Gates.

utworms Damaging orn in Missouri

COLUMBIA, MO. — (June 1) — me cutworm damage continues to w up on corn. The heaviest dam- e is yet to come, however, since worms have at least another 10 s to 2 weeks feeding ahead of m. What we have had in the way an armyworm threat seems to be r. Some spraying was done in sev- l southern counties, but it looks as ugh the rest of the state will get without any particular difficulty. The hopper hatch is well under y. With all the rain we've had, it's ittle surprising to see the number some areas. There's no way of owing what to expect in the way damage during the rest of the mmer, but it's always safest to the hatching beds sprayed out ther than to take a chance on fight- the hoppers later on.

Bagworms are beginning to hatch evergreens. We are also finding wflies on evergreens.—Stirling Kyd d George W. Thomas.

lfalfa Aphid Damage ght in Utah

SALT LAKE CITY, UTAH—With e exception of some areas in south- n Utah, damage from the alfalfa hid has been light to this date, cording to the U.S. Department of riculture in Salt Lake City. Fields e being watched very closely for y outbreaks, and control measures weevil have been practiced in st areas.

The alfalfa crop looks very good er the state, the report indicates, th some slow-down on the growth curring due to the cold weather at followed recent storms.

In some areas of southern Utah hid damage occurred, and spraying in operation. Some 400 acres have en sprayed in one area, the report ates.

Grasshoppers are expected to be entiful again this year in parts of rthern Utah, the experts say. Some ,000 acres of rangeland in Tooele unty are expected to be sprayed the near future.

Damage is not anticipated to be avy except in certain areas, and st hopper control operations will on an individual farm basis. icket infestation is not expected be heavy except in a few sections the state, the report adds. Baiting ograms will be carried out in these eas.

orn Borer Population igh in New Jersey

RUTGERS, N.J.—Corn borer lar- e are more numerous in New Jer- this spring than for the past four ars, according to a spring survey nducted by the New Jersey De- rtment of Agriculture and Rutgers niversity. Populations are nearly ice as high as in 1956, when corn mage was serious. Outlook for first ood infestation is high. However, rasitization of borers is on the crease and will probably cut back rer populations markedly, accord- g to the New Jersey Economic In- ct Survey.

orn Borers Begin mergence in Illinois

URBANA, ILL.—(May 29)—Pupa- n of overwintering corn borers is mplete in the southern part of Il- ois and moth emergence ranges m 12 to 90%. From all appear- ces damage from corn borer to ld corn in this area will be insig- icant. In central Illinois pupation nges from 50 to 95%, and first th emergence was observed this past week. Corn borers will not present a problem for at least another 2 to 4 weeks, at which time the few early-planted fields should be examined carefully. In northern Illinois, pupation ranges from 25 to 75% and first moth emergence will probably occur this week.

There are scattered reports of cutworm damage to early corn. Bean leaf beetles may concentrate in some of the early bean fields. They are now abundant in grass and alfalfa fields, but will search for bean fields soon. Ordinarily leaf feeding by this insect is not important. Occasionally, however, stands are reduced. In southern Illinois bagworms have been hatching for the past two weeks.—H. B. Petty.

Colorado Issues Psyllid Alert

FORT COLLINS, COL.—An alert signal has been issued to Colorado tomato and potato growers, warning them of unusually large numbers of tomato psyllids. A recent survey revealed severe infestations of the insect throughout the state. The survey findings follow on the heels of similar reports from Texas, New Mexico and other southwestern states.

Gordon Mickle, extension entomologist at Colorado State University, says that cool weather conditions have favored the population build-up on several wild host plants. If psyllids continue to increase their numbers, this could spell danger to tomato and potato growers.

The entomologist says that the insect soon may leave the wild plants and move to cultivated crops where they can cause heavy losses by transmitting a disease called psyllid yellows. Therefore, he advises a regular spray or dust program throughout the season.

Florida Pest

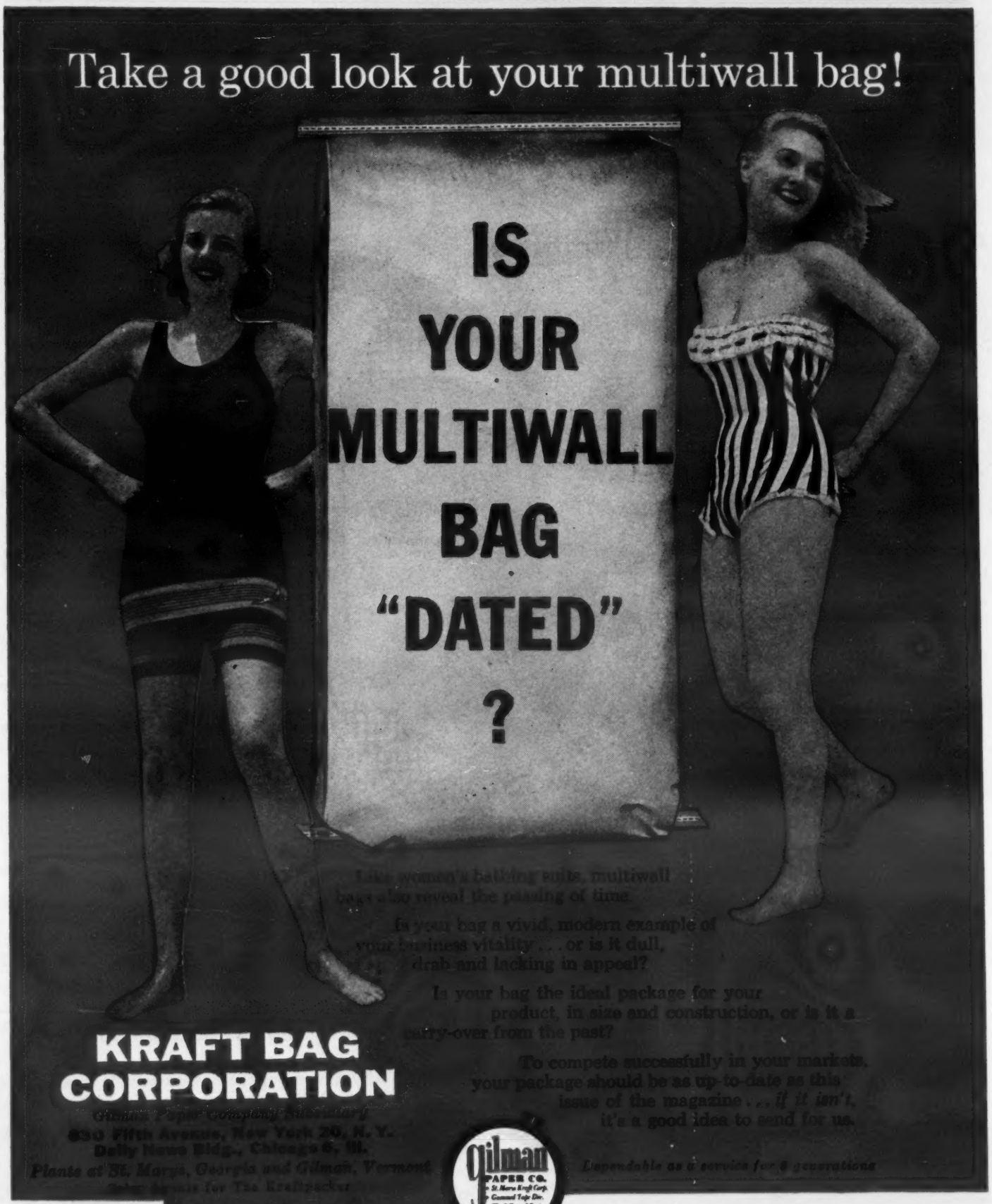
BARTOW, FLA.—The corn earworm has been giving Florida watermelon growers considerable trouble, Polk County extension workers reported last week. The pest, which usually attacks corn, bean, okra and tomato, has been rasping the rinds of large melons and entering the smaller sizes.

Locusts in Ohio

COLUMBUS, OHIO—The periodical cicada (17 year locust) has emerged in 19 southern Ohio counties, and egg laying was underway in late May, according to D. Lyle Goleman, Ohio State University extension entomologist. "They do not harm field crops, bite people or forecast a war (we hope)," Mr. Goleman commented.

RECORD STRAWBERRY CROP

PORTLAND, ORE. — An all-time record high Oregon strawberry crop of 88 million pounds is forecast by the U.S. Department of Agriculture crop and livestock reporting service. This exceeds last year's output by nearly one fourth and is 64% above the 1945-55 average.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IS YOUR MULTIWALL BAG "DATED" ?
Like women's bathing suits, multiwall bags also reveal the passing of time.
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Is your bag the ideal package for your product, in size and construction, or is it a carry-over from the past?
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Industry Patents and Trademarks

2,792,295

Herbicidal Granular Pellets and Method of Applying the Same. Patent issued May 14, 1957, to Maurice M. Wright, New Plymouth, Taranaki, New Zealand. A solid herbicidal product adapted for aerial distribution consisting of granules comprising a carrier medium having intimately incorporated therein a phytocidal proportion of an organic hormone herbicidal substance, said granular product consisting of granules small enough to pass through a 10 mesh B. S. sieve and free of particles that will pass through an 80 mesh B. S. sieve.

2,792,286

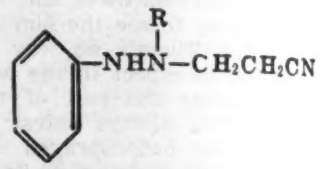
Continuous Process for Preparing Ammonium Phosphate. Patent issued May 14 to John D. Wordie and Davis A. Skinner, Fullerton, Cal., assignors to Union Oil Co. of California. A process for preparing aqueous ammonium phosphate which comprises the steps of continuously passing ammonia and crude wet-process phosphoric acid containing normally incident impurities which precipitate as solids upon treatment of said acid with ammonia into a first reaction zone wherein said ammonia and said acid are subjected to a temperature between about 200° and about 215° F. for a period of time between about 0.25 and about 1.25 hours, the amount of ammonia introduced into said first reaction zone being such that the product formed therein has a pH value between about 4.0 and about 4.2 and the concentration of P_2O_5 within said first reaction zone being maintained between about 20 and about 30 percent by weight; continuously withdrawing the product formed in said first reaction zone; continuously passing said product and additional ammonia into a second reaction zone wherein said product and ammonia are subjected to a temperature between about 200° and about 215° F. for a period of time between about 0.25 and about 1.25 hours, the amount of ammonia being introduced into said second reaction zone being such that the product formed therein has a pH value between about 6.3 and about 6.7; continuously withdrawing said product from said second reaction zone; and controlling the loss of water during said steps so as to avoid the formation of solid crystalline ammonium phosphate.

2,793,096

De-Odoring of Gas Streams by the Use of Micro-Biological Growths. Patent issued May 21, 1957, to Richard D. Pomeroy, Altadena, Cal. A process for removing from air streams organic and inorganic odoriferous compounds of natural or artificial origin, which process includes the steps of: preparing a gas-permeable soil bed using soil containing soil biota normally present therein; pressuring a stream of the odoriferous air and conducting same to a large number of horizontally-spaced discharge points positioned beneath the top surface of said soil bed to discharge at such positions and permeate upwardly through said soil bed to said top surface, the soil biota oxidizing said odoriferous compounds; and controlling the rate of such discharge of odorous air to thrive said soil biota on the odoriferous compounds the oxidize and thus substantially maintain the activity of the soil biota in the absence of other nutrients.

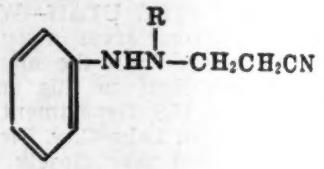
2,792,296

Phenylhydrazinopropionitriles, Herbicidal Method and Composition Embodying Same. Patent issued May 14, 1957, to Samuel Allen Heininger, Dayton, Ohio, assignor to Monsanto Chemical Co., St. Louis, Mo. A nitrile having the formula:



in which R is selected from the class consisting of hydrogen and the radical—CH_2CH_2CN.

The method of destroying undesirable plants which comprises applying to said plants a toxic quantity of a herbicidal composition comprising a nitrile having the formula:



in which R is selected from the class consisting of hydrogen and the radical CH_2CH_2CN.

2,793,154

Pyrethrum Pesticide Synergized with Lower Alkyl Aryl Ketone. Patent issued May 21, 1957, to George S. Shillitoe, London, and Arthur Douglas Harford, Sunbury-on-Thames, England, assignors to the British Petroleum Co., Ltd., London. A pest-combating liquid composition comprising pyrethrin and phenyl alkyl ketone in which the alkyl group comprises 1-4 carbon atoms, the ratio of the total weight of phenyl alkyl ketone to total weight of the pyrethrin being in the range of from about 5:1 to about 15:1, said pyrethrin and phenyl alkyl ketone being in solution with a liquid hydrocarbon distillate fraction derived from petroleum.

Industry Trade Marks

The following trade marks were published in the Official Gazette of the U.S. Patent Office in compliance with section 12 (a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within 30 days of publication in the Gazette. (See Rules 20.1 to 20.5.) As provided by Section 31 of the act a fee of $25 must accompany each notice of opposition.

White Tar, drawing of sailor holding sign with "White Tar" wording for insecticide. Filed May 20, 1955, by Koppers Co., Inc., Pittsburgh, Pa. First use during 1943.

Tetram, in capital letters, for insecticides and Acaricides for agricultural and horticultural use. Filed Oct. 19, 1955, by Plant Protection Ltd., Yalding, England.

Smithereen, in capital letters, for pesticides and insecticides. Filed March 13, 1956 by the Smithereen Co., Chicago. First use, 1888.

Urox, in capital letters, for herbicides. Filed April 2, 1956, by Allied Chemical & Dye Corp., New York. First use, Feb. 1, 1956.

Orprex, in capital letters, for ovicides and solvents, including carriers and vehicles for insecticides. Filed April 20, 1956, by Socony Mobil Co., Inc., New York. First use Dec. 2, 1955.

M/W MULTIWALL PAPER BAGS

by CHASE BAG

Multiwall Bags, like everything else, should be *right* for the job—right for *you*. Anything less wastes your time and dollars, means loss and inconvenience to customers.

That's why Chase supplies Multiwalls in such wide variety, in so many types and constructions . . . why the many Chase options—in papers, tapes, sewing—permit precise, money-saving selection.

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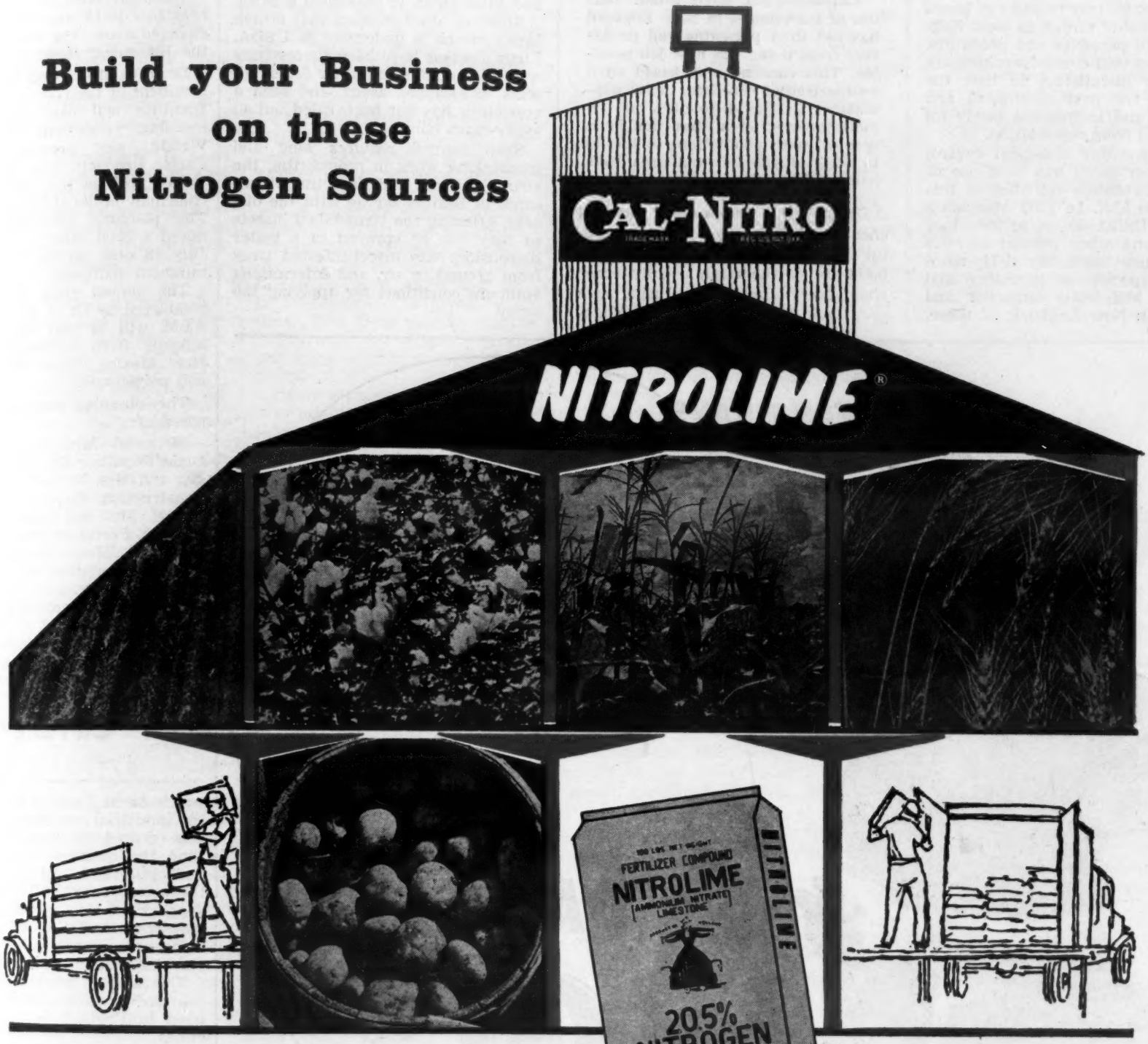

Here are two nitrogen sources you can offer your customers that leave nothing to be desired in plant feeding, and give your business a solid boost.

NITROLIME and CAL-NITRO are proven for top yields. Each is a high-quality, *non-acid forming* product that contains a guaranteed 20.5% nitrogen content. Half of this nitrogen in each case is nitrate nitrogen and half ammonia nitrogen, assuring the proper balance for greater crops.

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GYPSY MOTH

(Continued from page 1)

it from about three million acres on the southern and western edges of the generally infested area.

Natural enemies of the moth lessen but do not prevent economic damage, Mr. Burgess said. This insect continues to destroy millions of board feet of valuable timber in New England despite parasites and predators. That is why pest-control workers are relying on insecticides to halt the spread of the pest southward and westward, and to free the newly invaded areas from depredation.

The project for biological control of the gypsy moth has been one of the most extensive activities of this kind in the U.S. In 1905 Massachusetts and USDA began to introduce parasites and other natural enemies of the gypsy moth. By 1934, more than 40 species of parasites and predators had been imported and colonized in New England; of these, nine parasites and two predators have become firmly established.

Biological control has been less effective than might have been expected, because some of the most important parasites from Europe could not be established—alternate-host insects were not available here for the second or succeeding generations of the parasite.

Entomologists have found that use of insecticides in New England has not kept parasites and predators from doing the best job possible. This conclusion is based on a comparison of beneficial insect populations in the 5 to 10% of the moth-infested area that has been sprayed with populations in the 90 to 95% of the infested area that has not been sprayed.

Despite the presence of natural enemies, gypsy moths are still plentiful in some parts of Europe. Peak build-ups of the moth usually occur about every eight years. During such an attack in 1948 and 1949 in Yugoslavia, damage was estimated to be as great as the value of all agricultural production.

Another natural agency that attacks the gypsy moth is a wilt, or polyhedral virus disease. It is common in Europe and probably reached the United States among the large numbers of caterpillars imported in the parasite-introduction program. Unfortunately, this virus disease has had little effect in biological control.

Study of other diseases that attack gypsy moths is underway in USDA. Virus diseases have been successfully used to control some other forest insects in localized areas, and such a possibility has not been ruled out in gypsy-moth control.

Such control requires long and painstaking work in propagating the virus, rearing and infecting thousands of healthy larvae with the disease, grinding the virus-killed insects so they can be sprayed in a water suspension onto insect-infested trees from ground or air, and determining optimum conditions for applying the spray.

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*DAVISON Granulated Triple Superphosphate

EASY TO HANDLE—Because of its uniform particle size it spreads evenly and uniformly and is perfect for direct applications. Does not deteriorate in handling, packaging or storage.

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Plans Set for Southwest Conference, Grade Hearing

GALVESTON—Details of th Southwestern Fertilizer Conferen and Grade Hearing were discussed a recent meeting of the planni committee here.

The conference and hearing will held July 17-19, and the site has be changed from the Galvez Hotel the Buccaneer Hotel in Galveston.

Dr. Russell Coleman executive vi president of the National Plant Fo Institute will have charge of th morning session July 18. To Wright, vice president of Tex Farm Products Co., Nacogdoche Texas, will be the golf tourname chairman on the afternoon of July 1 The planning committee has pr mised a good band for the dance July 18 plus several surprise ente tainment features.

The annual grade hearing, to conducted by Dr. J. F. Fudge, Tex A&M, will be held July 19. Contr officials from Arkansas, Louisian New Mexico, Oklahoma and Tex will participate.

The planning committee is co posed of:

Mr. and Mrs. Stanley Hacke Dixie Fertilizer Co., Shreveport, L Mr. and Mrs. W. S. Tyler, Longho Construction Co., Sulphur Spring Texas; Mr. and Mrs. Don Mill Armour Fertilizer Works, Houst Mr. and Mrs. Harold Tramme Farmers Fertilizer Co., Texarkan Texas; Mr. and Mrs. J. D. Dawso Jr., Fidelity Chemical Corp., Hou ton; Dr. and Mrs. J. F. Fudge, sta chemist, Texas, and Mr. and M Jack Lindsey, International Miner & Chemical Corp., Shreveport, La.

CIPPERLY

(Continued from page 1)

which faced England at the time the industrial revolution when stea was geared to factories. At th time the common man with she and cattle and land was forced in the factory to work after he had be deprived of his farm livelihood. T industrial revolution was a sad co mentary on modern concepts of s cial responsibility.

This modern world refuses to a cept such a radical revolution as e isted in England in the early se enties.

Industry officials told Croplife la week that, while they agreed wi the aim of Mr. Benson's philosophi they think that any exodus of t inefficient from farms must be ev lutionary not at a hurried pace. Th believe that Mr. Benson may forcing his case.

It is believed that the farm chem ical industry will slowly benefi from the evolutionary process o the slow passage of small, ineffi cient farmers from land.

Meanwhile, the farm legislati situation is in a mess. The Far Bloc within its former cohesion busted wide open.

The palliatives which are now pr sented—the soil bank and Public La 480 with its gift aspects of U.S. ag cultural surpluses—have a curre fascination in congressional blo which had formerly backed the ri high price support and acreage co trol programs.

Alfalfa Weevil Makes Bow in Connecticut

NEW HAVEN, CONN.—Appea ance of the alfalfa weevil has be reported in Connecticut. One adu weevil was discovered in a Hamd planting of alfalfa by Richard Quinton, entomologist at the Co necticut Agricultural Experime Station. First known infestation this pest in the East was in Ma land five years ago.

By RAYMOND ROSSON

County Agent, Washington County, Tenn.

Improving a community is hard work. Improving a county is hard work, too. It is a job that is never completed. It requires vision, imagination, study, ingenuity, initiative and a cooperative spirit between urban and rural people.

"My community is a good place in which to live and rear a family," said a seed, feed and fertilizer dealer.

This happened at a joint meeting of townsmen and countrymen. After the business man made the above statement, a leading farmer had the floor and he said, "You imply that it is a pleasant place, that the people are friendly and neighborly with a feeling of pride in their surroundings, that homes and grounds are attractive and well kept and that young and old play and work together. You indicate, too, that the people support their churches and have a keen appreciation for high moral standards.

"You express a feeling that such a community works hard to provide the best educational advantages for its young people, that adults have the means for getting and using information on the best business, farm and home practices and that farming and business in town are progressive and continuously being improved.

"You are certainly saying a lot about a community when you pay it this compliment. One thing is sure: This kind of community doesn't just happen. It grows altogether from determination of both town and country people to create a better place to live."

All of us are residents of some community and everyone of us would like the same thing said about our community.

Mister dealer, you are a part of the country community in your trade area and your farmer customers are a part of your city community . . . C-H-E-C-K?

Tight Money Not Hurting New England's Agriculture, Banker Says

BOSTON—The current tight money policy has not hurt New England agriculture, according to L. A. Zehner, assistant vice president of the Federal Reserve Bank of Boston, speaker at the meeting of the New England Farm Equipment Dealers Assn. at Hotel Bradford.

Mr. Zehner supported his declaration by citing a summary of farm loans outstanding at the New England banks which are members of the Federal Reserve System. At the end of 1956 these banks had 14% more short term loans outstanding to farmers and 6.6% more real estate loans outstanding than a year before, Mr. Zehner said.

"Thus though some individual farmers may have suffered from tight money in 1956, the evidence is clear that member banks were generally able to meet their customer needs," he declared.

Pricing and Profits in Small Stores

• By Edward L. Anthony
Managerial Assistance Division, Small Business Administration, Washington, D.C.

According to one popular theory, the key to success in a small retailing business is volume. "Yes," say some, "when you get your volume up, everything works out all right." Another common idea, however, holds that the vital factor is margin. "Remember," say supporters of this view, "price to hold up your margins on each item and the whole line will be in good shape."

PRICE-VOLUME-PROFIT RELATIONSHIPS: Actually, there is no single success-producing factor. It is a combination of price and volume which tells the profit story. A few typical situations with illustrative figures will support that statement.

Three Cases in Point: Suppose first, that you buy an item at $2.62½ net. You price it at $4.50 and sell 300 in the course of a given period of time. This gives you an income of $1,350 with cost of goods of $787.50 and a gross profit of $562.50 for the period.

Next, suppose you think that the item might move better with a lower ticket. Accordingly, you cut the price to $3.95. Volume over an equal period expands to 600 units and income rises to $2,370. Cost of goods still at $2.62½ net per unit, jumps to $1,575 and you earn a gross profit of $795 for the period. This is better than before, just as you had hoped.

Then finally, suppose you decide to push for the still greater volume and, therefore, cut your price to $3.79. Sales during a like period rise, but only to 675 units. Income goes up to $2,558.25 and cost of goods increases up to $1,771.88. In this situation you end the period with a gross profit of $786.37. You did get an increase in volume, but you're worse off. In the second case your gross profit was the largest in terms of total dollars.

The conclusion to be drawn from these cases is that the best price was in the $3.95 range. The price-volume-profit relationship at that point yielded the most dollars at the end of the period. It isn't a question of price alone; you have to consider both at once.

A Word About Expenses: "That's a good line of reasoning," some businessmen will say. "but what about expenses?" The answer to that question is that, here, they were left out of the calculations. In relation to any individual item in a store, most big retailing expenses are "fixed" in the short run. "Variable" expenses, like wrapping paper and string, are usually insignificant. But major expenses, like rent, wages, and advertising would, in most cases, hardly be changed if a single item were added or dropped from stock. The exceptions are the situations where rent is based on a percentage of revenue, where salespeople get a percentage commission, or where both techniques are used together.

Unless you operate with such percentage arrangements, it is a highly complex job to estimate what expenses per item really add up to as its volume changes. Therefore, when expenses are largely fixed in relation to a single item, it is usually good sense, in determining its price, to consider the effects of a price change on dollar gross margin. That's what was done above.

Watch the Over-all Effects: Along this line, in making price decisions try to cultivate a broad and long-range concept. For instance, some retailers plan to enlarge their clientele by pricing one of their tems so low that they only cover their costs. Other merchants plan to build prestige by pricing certain lines so high that they appeal only to a very special class of customer. While such policies may not yield the biggest profits at the moment, they are designed to do so over the long pull by the effect they have on the store's total trade.

There is wisdom in watching the profits for your business as a whole. This means that some items you carry may not necessarily make a given profit percentage—or even a profit at all. But they will tend to build business. The principle of "leaders" rests on the fact that one of the best ways of attracting customers is to offer certain articles at exceptionally low prices. Shoppers coming in for the leaders are encouraged to purchase other merchandise in sufficient quantity to more than make up for the leaders' lack of margin. Salespeople, of course, must concentrate on moving other goods besides just the leaders.

Unquestionably it is not always easy to apply the reasoning outlined by the price-volume-profit examples. In practice it is hard to "look ahead," as it were, to try to determine how many units of a given item would be sold at various prices. To find out, you have to experiment. But most small retailers, having hit on a price which produces a reasonable volume and profit, are hesitant to risk any further experimenting. Moreover, in many cases the typical merchant is pretty much forced to keep his prices in line with those of competitors.

By and large, the nature of the item you are trying to price is the most important consideration. For example, a housewife normally will buy only as much salt as she needs whether the price is high or low. But as the price of electrical appliances drops off, more and more housewives tend to buy them. However, with standard, nationally advertised, widely used items, reductions by one seller will usually be met with similar price cuts by others. In those cases, the important question becomes, "Which way would we all be better off—as things stand, or at a lower price level?" Many retailers will remember the answer when that question was posed some years ago in regard to phonograph records: when a general price reduction was tried it brought out dramatically increased sales and profits to all. Obviously, of

(Continued on page 17)

SHOP TALK

OVER THE COUNTER

By Emmet J. Hoffman
Croplife Marketing Editor

When the farm supply dealer decides to broaden his attempts to get additional business and he begins to look for new customers, he will do well to check up on inactive customers, for they may be the source of a sizable increase in volume.

Who are inactive customers? They are the buyers who once bought from your store but who still live in the area and have not bought at your place for many months. Why? That is for you to discover.

Why is it wise to check on inactive accounts, before trying to get new customers—those who have never before bought anything from your feed store? The inactive customers are important for a number of reasons, the chief of which are:

1. Some of the inactive customers may be proof of some inadequacy in your sales and service policy. It is to your advantage to find out what these "holes" in your program are, so that you can remedy them and thus not make the same mistakes over again.

It is true that some of the inactive accounts will have moved from the trade area; others may have died; some may have bought elsewhere where it seems more convenient. On the other hand, some inactive accounts are so because you may have failed to please them sufficiently, failed to live up to their expectations of what a good dealer ought to be.

Perhaps you think you are a dealer who is rendering good service. But some inactive accounts think not. So—you owe it to yourself to find out what the score is.

2. Some can be won back. Some of those inactive accounts can be won again. It may be that some of those customers nurse a grudge against you. By visiting such customers, by talking things over with them, maybe you can straighten things out and win their trade again. It is worth trying.

Some of those inactives will be neglected customers. They drifted elsewhere because you didn't pay much attention to them. You didn't visit them at their farms, you didn't send them thank-you letters, and you didn't give them special attention. When you now visit them again, you may see where you can win them back by paying more attention to them. That is all that is necessary in some instances.

You have an advantage when you call on inactive accounts in that they know something about your policies and your products. If you can straighten out a possible hostile feeling between them and you, then you can sell them easily, because they know you are a reliable dealer from previous dealing. What they may hold against you is that you didn't act friendly enough. Remedy that and you often get their business again.

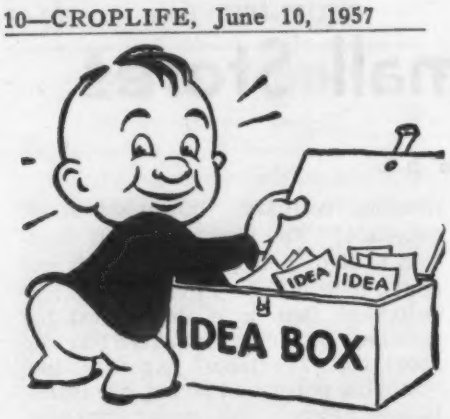
3. Stop the angry inactive from talking. You wouldn't go to a satisfied customer and ask him what you are doing, but when you contact an inactive customer who doesn't buy from you any longer, he will tell you what caused him to stop buying from you. Then you have an opportunity to "straighten things out" so that this angry former customer won't go on "knocking your business" to people in his area.

Many accusations which angry customers make about a dealer are unjustified, and the sooner a dealer knows who is spreading the stories, the quicker he can step in and stop such practices. Stories that are passed from one farmer to another like this—often without checking on the truth of them—can do lasting harm. They are most likely to come from inactive customers; that's why it is a good policy to visit those inactives and learn how they feel about you, your products and your policies.

4. Lessons learned from such contacts. When the feed dealer follows a policy of contacting his inactive accounts, he will gain valuable experience. He will learn how sensitive most customers are, how they need constant contacting, encouraging and helping, and the dealer will thus resolve to pay more attention to his active customers as well, lest they in turn become inactive, too, for the very same reasons.

Some large retail firms have di-

(Continued on page 18)



What's New...

In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

No. 6587—Lime, Fertilizer Spreader

Ten-ton loads of lime and fertilizer are claimed to spew from custom bodies on the International Harvester Company's model VF-192 motor trucks at a 1½-tons-per-minute rate in soil building services provided by the Cooperative Grange League Federation Exchange, Inc. to member farmers in New York, New Jersey and northern Pennsylvania. Newest units of the 175-truck fleet GLF em-

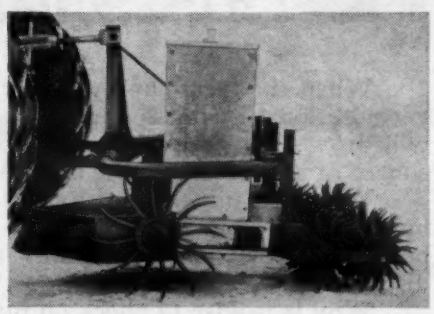
ploys in this agricultural service are like that pictured above at Nichols, N.Y., RF-192 tandem models. The six-wheelers, with auxiliary transmissions, spread acreage that ranges from flat to hilly, rough and soft. Front truck tires have on and off-highway casings and the eight rear tires have lug treads. Spreading gear, fabricated in the GLF shops here, was designed by the cooperative's soil building division. Truck transmission is five speed, with direct in fifth. The auxiliary two-speed transmission permits specific range variances for lime (high) and fertilizer (low). Secure complete details by checking No. 6587 on the coupon and mailing it to Croplife.

No. 5710—Steel Buildings

Black, Sivalls & Bryson, Inc., announces a new line of "Perfection" prefabricated steel buildings for factory, farm and commercial use. A truss-type building with panel sidewalls and ends, the building is available in a variety of standard sizes and styles in regular increments up to 100 ft. in width, 20 ft. in height and unlimited lengths. Prefabricated wall panels, with door and window frames installed during fabrication, permit quick erection of the buildings, it is claimed. The roof is the only area requiring sheeting in the field. Available with the building are industrial windows, doors, translucent roof panels, insulation, guttering, ventilators and louvers. Partitions, cranes and monorails are also available upon special request. Secure details by checking No. 5710 on the coupon and mailing it to this publication.

No. 6586—Dispenser-Applicator

The Howry-Berg Steel & Iron Works has engineered and tested a combined machine which is claimed to dispense all dry chemicals through the use of a conveyor belt arrangement, and thoroughly mixes the chemicals into the soil by means of special tiller applicator wheels. Both operations are said to be accomplish-



ed simultaneously, placing the chemicals only where needed, without loss from wind drift. Machines are attachable to tool or cultivator bars mounted on farm tractors and are obtainable for band widths of 6, 8, 10, 12, and 18 in. Tiller applicator units equipped with spray nozzle holders for use with wettable chemicals are also available for band widths 4 to 18 in., in increments of 2 in. Secure complete details by checking No. 6586 on the coupon and mail it to Croplife.

No. 6589—Hose Pump Spreaders

A selling and renting plan for Linck's liquid spreaders has been set up for dealers, according to the O. E. Linck Co., Inc. The program offers a line of concentrated lawn chemicals and patented liquid spreaders, which were developed under the patents of the University of Tennessee, according to Linck officials. A folder on the program outlines the firm's line of lawn chemicals, including a crab grass killer, weed killer, fungicide, insecticide, fertilizer, nitrogen, iron and wetting agent. Secure the details by checking No. 6589 on the coupon and mailing it to Croplife.

Also Available

The following items have appeared in the What's New section of recent issues of Croplife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.

No. 6585—Emulsifier

A development in facilitating the field mixing of emulsifiable pesticide concentrates with liquid fertilizers has been announced by the Emulsol Chemical Corp. The new emulsifier, Emcol H-C is an extension of Emcols H-A and H-B which have been in production for some time, for such emulsifiable concentrates as aldrin, BHC, chlordane, dieldrin, Endrin, Heptachlor and Nemagon. The material is especially recommended in formulating emulsifiable concentrates to be used in high potash fertilizer solutions. Full details are available in technical bulletin No. 47 titled, "Formulator's Manual for Liquid Fertilizer-Liquid Pesticide Mixtures." Check No. 6585 on the coupon and mail it.

No. 6577—Fertilizer Equipment Catalog

A new 24-page 2-color catalog showing its line of equipment for the fertilizer industry has been published by the Stedman Foundry & Machine Co., Inc. Included in the publication are front and rear view machinery illustrations, foundation plans and information concerning the company's granular fertilizer process, four lines of batch mixers, continuous ammoniators, all-steel mixing units, tailings mills—both hammer and double cage types—and vibrating screens—single and multiple deck units. New machines not shown in any other company literature are included in this catalog No. 515. For a copy check No. 6577 on the coupon and mail it to Croplife.

No. 6568—Municipal Insect Control

Literature pertinent to municipal insect control has been published by the Velsicol Chemical Corp., in a brochure called, "Here's What Chlordane Insecticides Can Do For Your City." The contents include technical bulletins dealing with a wide variety of insect pests, insect habits, insecticide dosages, and other aspects of successful municipal insect control. The subject is treated in considerable detail. The brochure is said to be useful both as a reference volume and a source of information and subject matter for those who plan and conduct meetings on community health problems. It also will serve as a guide in establishing standards for control methods and purchasing specifications which involve the amounts and quality of insecticides that should be used in a municipal insect control program. A copy can be obtained by checking No. 6568 on the coupon and mailing it to Croplife.

No. 5688—Contract Blending

A brochure entitled, "Contract Blending to Meet Your Requirements," has been prepared by the Dearborn Chemical Co. The brochure

(Continued on page 12)

Send me information on the items marked:

☐ No. 5669—Bag Flattener	☐ No. 6581—Liquid Unit
☐ No. 5688—Contract Blending	☐ No. 6582—Resistance Folder
☐ No. 5693—Catalog	☐ No. 6583—Tanks
☐ No. 5710—Buildings	☐ No. 6584—Soil Bag
☐ No. 6568—Insect Control	☐ No. 6585—Emulsifier
☐ No. 6577—Fertilizer Equipment	☐ No. 6586—Applicator
☐ No. 6579—Rotary Dryers	☐ No. 6587—Spreader
☐ No. 6580—Chlorosis	☐ No. 6589—Liquid Spreader

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COMPANY .....

ADDRESS .....

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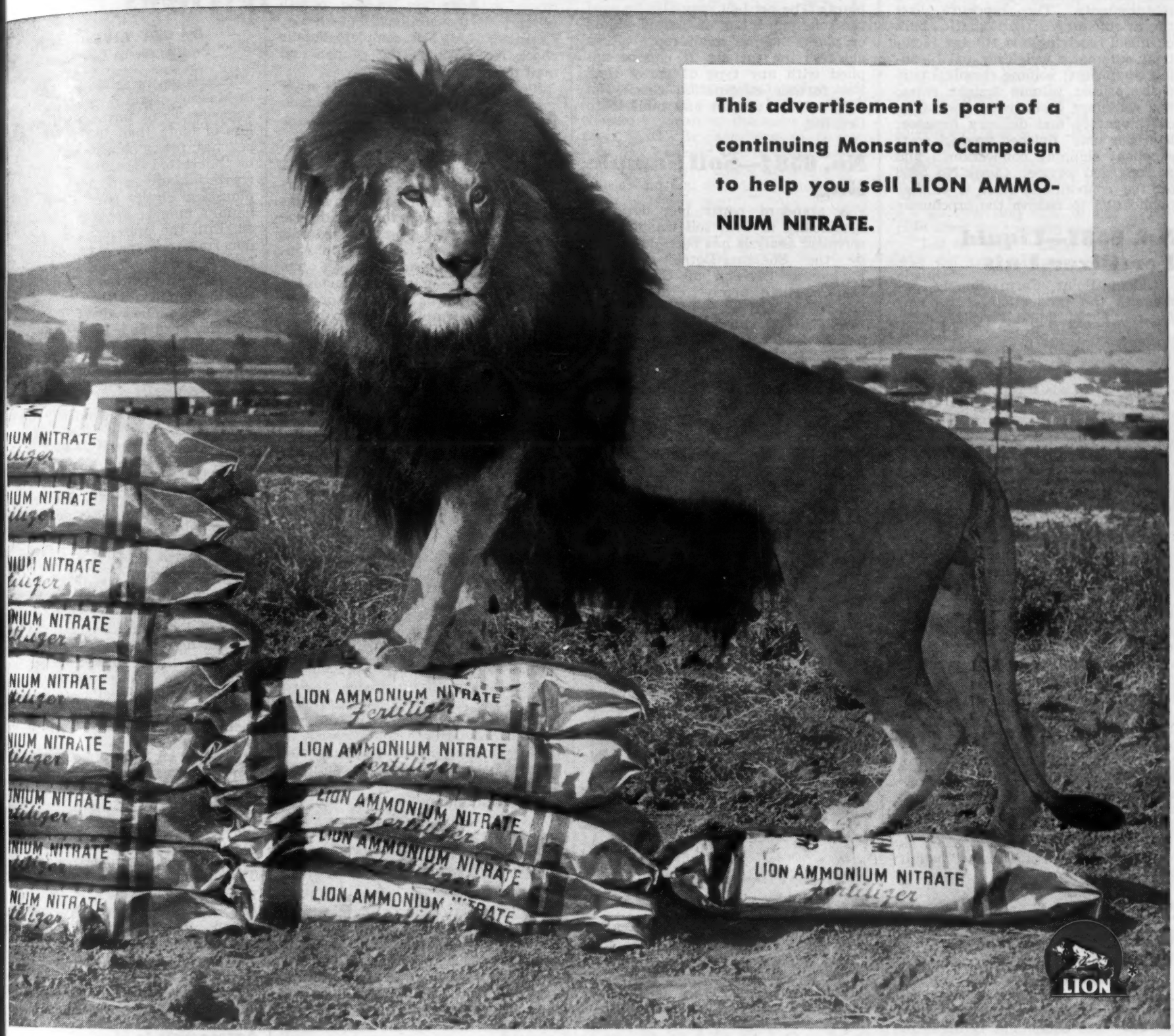
This advertisement is part of a continuing Monsanto Campaign to help you sell LION AMMONIUM NITRATE.
LION AMMONIUM NITRATE
Fertilizer
LION

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You save money with LION in your fields

LION BRAND AMMONIUM NITRATE IS MORE ECONOMICAL THAN NITRATE OF SODA OR AMMONIUM NITRATE–LIMESTONE CARRIERS

FOR LOW-COST NITROGEN, LION Ammonium Nitrate is the brand. Guaranteed to contain 33.5% nitrogen, LION is . . .

- **Far more economical** than nitrate of soda, which contains only 16% nitrogen. You get more than *twice as much* of the valuable plant food, nitrogen, in every bag of LION brand Ammonium Nitrate than you do in any bag of nitrate of soda.
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FOR EASIER SPREADING, Lion Ammonium Nitrate is in pellet form. These pellets are specially coated to withstand caking . . . then packed in specially lined, moisture-resistant bags. Result: LION brand is *guaranteed* to flow freely—*not for just a year, but until used*—when you follow storage directions on the bag.

3 EASY STEPS TO GET *ALL* THE FEEDING-POWER YOUR CROPS NEED

1. **TEST YOUR SOIL** to see what kinds and amounts of fertilizers are needed. Your local farm authorities will help.

2. **ORDER WHAT YOU NEED** of mixed fertilizer and Lion brand Ammonium Nitrate from your fertilizer dealer. When you buy LION, you get top-quality, low-cost nitrogen fertilizer *guaranteed* to flow freely; *guaranteed* to contain 33.5% nitrogen.

3. **APPLY THE FULL AMOUNT** of mixed fertilizer and Lion brand Ammonium Nitrate soil tests indicate. Don't skimp—fertilizer is the least expensive item you use for crop production.

GROW MORE PROFITABLY ... Weed Killers • Brush Killers • Parathion Insecticides • Meta-Green® to keep silage fresh • Phosphates (liquid and solid) • LION Sulphate of Ammonia • Anhydrous Ammonia.

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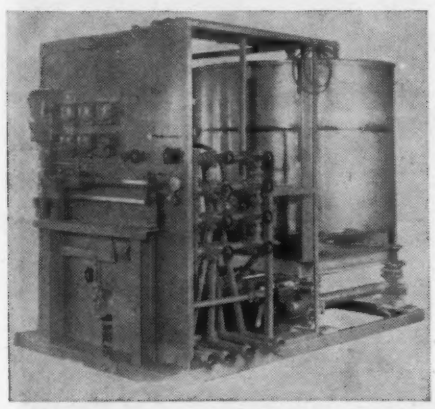
MONSANTO CHEMICAL COMPANY • INORGANIC CHEMICALS DIVISION • ST. LOUIS 1, MO.

states that the facilities of the firm's new, push-button control plant are available to manufacturers of compounded chemicals. Materials can be produced, packaged, labeled and shipped in accordance with desired requirements. The brochure lists these advantages: Automatic bulk chemical receiving and storage facilities; automatic weighing and blending equipment; volume chemical purchase prices; volume freight rates; low container costs; reduction of local inventory and delivery expense; low "per unit" finished product cost; excellent shipping connections; and personalized service. Check No. 5688 on the coupon and mail it to this publication to receive the brochure.

No. 6581—Liquid Fertilizer Unit

Indian Point Farm Supply announces the production of its new five-ton batch liquid fertilizer unit.



The plant will produce 200 tons per day, state company officials. Their announcement continues: "Ingredients are weighed in the stainless steel tank. Potash and urea are introduced with the fiber glass cup elevator. All control valves for mixing, pumping to storage and loading out spray trucks are within easy reach of the operator at the control panel. The unit can be purchased separately or complete with all storage tanks, plumbing and load-out lines." Pictured is the skid mixing unit. To secure complete details check No. 6581 on the coupon and mail it to Croplife.

No. 5693—Separator Catalog

A new 22-page catalog describing vibrating screen separators, called by the trade name, Sweco, has been issued by the Southwestern Engineering Co. The equipment is used for the screening of many types of dry materials, including some used in grain and feed processing, and the chemical industry. The catalog is well-illustrated and is in two colors. Operational details are provided. Check No. 5693 on the coupon to secure the catalog.

No. 6580—Chlorosis Treatment

Chlorosis—caused by a deficiency of iron in plant and tree leaves which often results in below-standard harvest—can now be treated through the use of Greenz 26, an iron complex especially developed by the Crown Zellerbach Corp. for use as a leaf spray. The firm's announcement states: "When applied to foliage, Greenz 26 solution: (1) turns chlorotic yellow leaves green; (2) restores vitality to iron-deficient plants; and (3) improves quality and quantity of crop from iron-deficient trees and plants. The product may also be used for soil application to potted plants or plants having small root volume close to the surface. It can be applied with any type of spray rig." For further information check No. 6580 on the coupon and mail it to Croplife.

No. 6584—Soil Sample Bag

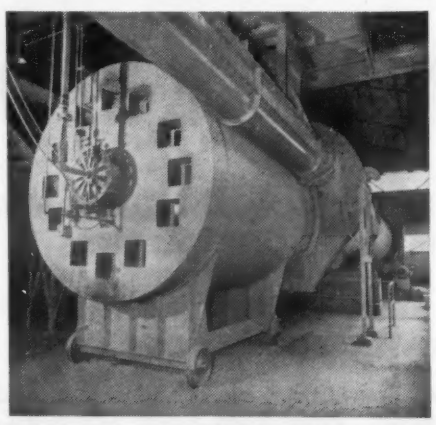
A standard paper bag designed specifically to hold soil samples for chemical analysis has been developed by the Shellmar-Betner Flexible Packaging Division of Continental Can Co. The company states the bags are "clean and easy to mark" and "are made of sturdy bleached Kraft paper, lined with protective glassine paper." Each bag is equipped with a steel tie that rolls up to further protect the soil contents. They can be supplied either plain or imprinted with a form that lists the farmer's name, bag contents and crop information. The bag is 3⅜ in. wide by 2½ in. deep (front to back) by 9⅜ in. tall. For complete details check No. 6584 on the coupon and mail it to Croplife.

No. 6582—Insect Resistance

The American Cyanamid Co., phosphates and nitrogen division, has available new literature discussing insect resistance to insecticides. Part of the literature is a folder entitled, "Malathion Insecticides, Grower's Guide." In the folder is a detailed spray and dust chart for Malathion use on fruit trees, citrus trees, vegetables, field crops, ornamentals and greenhouse plants. The product's use in fighting household insects is also outlined. Check No. 6582 on the coupon, clip and mail it to Croplife to secure the literature.

No. 6579—Rotary Dryers

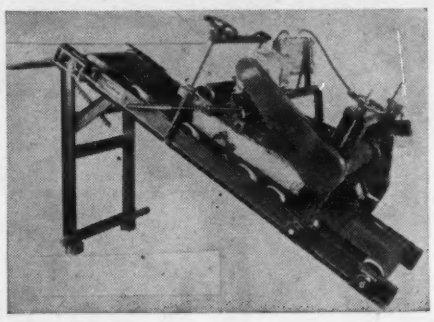
Information about Standard-Hersey dryers for processing potash and other chemicals is available from the Standard Steel Corp. The company, specializing in the design and manufacture of rotary dryers since 1878, has made rotary dryers up to 12 ft.



in diameter for the fertilizer industry. These concurrent rotary dryers, with floating tires mounted on shims and held in place by keeper blocks, are typical of Standard-Hersey installations in the potash and fertilizer industry, company spokesmen said. Pictured is the burner end of an 8-ft. diameter by 60-ft. long rotary dryer in operation at the potash refinery of the National Potash Co., Carlsbad, N.M. For complete details check No. 6579 on the coupon and mail it to Croplife.

No. 5669—Bag Flattener

A new heavy-duty bag flattener using power-driven "condersite" covered rolls and rough top belting has been announced by the Flexoveyor Manufacturing Co. The standard unit is 24 in. wide and has 6 ft., 8 in. centers and is powered by a 1½ h.p. gear motor. The unit can be furnished horizontal for floor mounting, or with casters for portability, or can be inclined up to 35°. Hand wheel adjustment for both the receiving and discharge ends of the hugger conveyor



is provided. All bearings are antifriction ball bearings, with rolls having sealed-for-life ball bearings, it is explained. The company claims that the flattener "has been proved by continuous operation under severe lines" and that it "produces neat, operating conditions in production well-formed bags that are easier to handle and conserves shipping and warehouse space." Secure complete details by checking No. 5669 on the coupon and mailing it.

No. 6583—Rubber Lined Tanks

A booklet entitled, "Corrosion Protection for Agriculture and Industry," has been published by the Gates Rubber Company Sales Division, Inc. The booklet provides information about the flexibility and uses of the company's rubber lined tanks, including the storage of nitrogen fertilizer. Check No. 6583 on the coupon and mail it to secure the booklet.

NEW HAMPSHIRE CIRCULAR

DURHAM, N.H.—The University of New Hampshire has published the 1957 edition of Extension Circular 332 entitled "Vegetable Insects and Diseases and How To Control Them." This circular was prepared by Dr. Avery E. Rich, Dr. James G. Conklin and J. T. Kitchin. Dr. Rich is plant pathologist at the University of New Hampshire and supplied the information concerning control measures for the various plant diseases. Dr. Conklin is the entomologist at the University of New Hampshire and supplied the information concerning control measures for insects which attack vegetable crops.

New England News Notes

By GUY LIVINGSTON
Croplife Special Correspondent

This is an uncertain year for crops in Massachusetts because of weather vagaries. Fruit farmers will suffer a loss of more than $600,000 with few peaches, fewer plums and cherries to be harvested because of a record freeze in January which killed peach, plum and cherry buds. On the other hand, a bumper apple crop is expected. But, the present year is also an uncertain one for Massachusetts tobacco growers in the Connecticut valley area. This market uncertainty and the availability of the soil bank promises to reduce 1957 plantings of Havana Seed to a record low.

Planted acres of Havana Seed in 1956 were cut 50% below 1955 plantings due to an unfavorable market for 1955 crops, a reduction in acreage quotas and the availability of the soil bank. Arthur W. Dewey, department of agricultural economics and farm management at the Storrs, Conn., Agricultural Experiment Station, reports that these factors contributed to the uncertain outlook which helped keep production down.

Another major demand factor in the outlook for Connecticut Valley Havana Seed is the plan of many cigar manufacturers to substitute manufactured sheet for natural leaf binders. Expanding facilities for manufacturing this sheet will soon be adequate to meet approximately one third of the binder requirements for domestic cigar manufacturers. Since tobacco is pulverized before being manufactured into sheet, the quality advantages of Connecticut Valley Havana Seed will be reduced.

The report also reveals that 1956 supplies of Havana Seed are 20% below 1955 and the lowest on record. Future requirements for Havana Seed are dependent upon the national supply of all cigar tobaccos available. These factors will tend to reduce 1957 plantings of Havana Seed to a record low. In a referendum, the Connecticut Valley tobacco growers voted for marketing quotas for the next three years, automatically making themselves eligible to participate in the acreage reserve program of the soil bank.

Agronomists to Meet

The summer meeting of the Northeastern Branch of the American Society of Agronomy convenes June 18-20 at the University of Massachusetts. The meeting opens June 18 with an address by J. Paul Mather, president, to be followed by a talk on agricultural research in Massachusetts by Dr. Hale H. Sieling, dean of the College of Agriculture of the university. A soil bank symposium will follow, and the rest of the day will be given to a discussion of soil problems.

Papers on crops and soils and a fertilizer symposium will be held June 19. The final day of the meeting will be spent in a trip to South Carver, Mass., for a discussion and demonstration of cranberry production by the staff of the Massachusetts Cranberry Experiment Station.

Forestry Specialist Retires

Robert B. Parmenter, extension forestry specialist, has retired from his position at the University of Massachusetts after 22 years of service. He joined the extension staff in 1935 and has, since then, advised many Massachusetts woodland owners in the management of their holdings. He stated that he has been pleased with the huge increase in interest in forestry within the state since he began work 38 years ago as a state forestry department employee.

Mr. Parmenter is a past chairman of the Massachusetts Tree Farm Committee formed in 1950.

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Shipping Point: Plants: Hackleburg, Alabama

THE THOMAS ALABAMA KAOLIN COMPANY.
2412 KEN OAK ROAD, BALTIMORE 9, MARYLAND
IT WILL PAY YOU TO INVESTIGATE "TAKO" FOR YOUR REQUIREMENTS

Uniform Quality Prompt Shipments

Doing Business With

Oscar & Pat

By AL P. NELSON
Croplife Special Writer

Quite a bit of paper work had flowed over Oscar Schoenfeld's desk by the time tall, blue eyed Pat McGilliuddy, his partner, got to work round 8:45 a.m. Balding, rotund Oscar glanced at the clock critically as he always did when Pat came in late—and then turned back to his disbunt work. Only a dumbbell could ail to get the significance of Oscar's ction.

"Guten morgen!" grinned Pat as he oke the German term which he had icked up recently for use with Oscar hen he felt especially good.

Oscar grumbled a "good morning" n English, resenting Pat's use of the erman expression, and never thinkng that he could use an Irish term n greeting Pat, too.

Humming an Irish tune, Pat sat own at his desk, thumbed through is mail for about 10 minutes, and hen he took a long, folded paper rom his inner pocket.

"Oscar," he said with very good umor, "you always say, begorra, that never talk over promotional ideas with you before I go ahead with hem. Is that right?"

Oscar looked up sharply. "McGilliuddy, now you are talking sense."

"I thought you'd like it," grinned Pat. "Nora and I have been working n an idea for sometime, and she rew up a sketch for me. Here, take look at it and give me your opinon."

Rather proudly Pat passed a paper ver to Oscar, since their desks were ack to back.

Oscar frowned as he looked at the sketch, for instinctively he knew it meant spending more money. He saw a sketch of the front door of the Schoenfeld & McGillicuddy Co. (the name was there) and in the lower, wooden half of the front door, was a sleepy owl with copy which said, above a slot in the door, "Nite Owl Service . . . We want your business night and day. Slip your orders through the slot."

"Ach, what is this for?" Oscar asked harshly.

"Why, it is intended to get night owl business, Oscar," said Pat. "You know how it is today—many people, even farmers, travel around in the evening to shows, to visit friends, to night clubs, taverns and restaurants. When they are in town they may think of some farm supplies they need. So, if we have a night owl service, they can write their orders on a card or piece of paper and slip them in the box."

"Ach!" said Oscar critically, "why don't they stay home and go to bed early every night, like Minnie and me, instead of roaming around all the time? That kind of farmer ain't got no good credit. He always charges his stuff for 90 or more days. We want cash business!"

"But it's an age of competition, too," Pat said patiently. "We have to do little extra things to get more traffic, more attention and more orders."

"Ach, we are on a side street," Oscar said sharply. "Not much traffic goes by this way. I have always kicked because you keep those window lights on until 9 o'clock. We could save the electricity."

"Oh, no," said Pat. "There are lots of people who see our lighted windows each night. I have come down here after supper many times and just checked to see how many cars go by. I have also seen many people stop after a show, get something to eat at the restaurant four doors down and take a look at our windows."

"Why don't they learn to buy in the daytime like other people do?" Oscar asked sharply. "Why do we have to light windows at night for them? First thing you know they will expect us to stay open until midnight for them."

Pat smiled. "Well, remember that all night promotion we carried out a couple of months ago, when we stayed open night and day for 36 hours? We did a lot of business, moved lots of 'cats and dogs' and got extra fertilizer orders."

"Ach, and they spilled coffee and crumbs all over," snapped Oscar, "and we had to clean up the mess the day after. And our men was so sleepy next day I caught two of them sleeping on fertilizer sacks in the warehouse. And you wouldn't let me dock them an hour's pay!"

"We have to put in extra time to get more business," pointed out Pat, "but this 'Nite Owl' service will help us eliminate many night hours. The customer does all the work. He orders his farm supplies himself and drops the order into the slot. We can advertise the 'Nite Owl' service in our ads, and I am sure many farmers will take advantage of it."

Both men were suddenly aware that plump Tillie Mason, their bookkeeper, stood at the railing. Her face was pale. "You men promised not to quarrel in the office. I—I can't stand it, I told you I would quit if you kept fighting all the time."

"Are you quitting?" Pat asked anxiously.

"I'm going to have a cup of coffee over at the Slide Inn Cafe," Tillie said nervously. "I want to think it over. The banker wants me in his office, you know. At least I would have peace."

After Tillie had gone, Pat said quietly: "Well, we don't want to lose Tillie. Let's stop arguin', begorra, and I'll go over and talk to her at the cafe after she's sipped some coffee."

"Let her quit!" Oscar snapped. "It will cut our expenses. This is our chance."

Pat looked astonished. "But, but who will do all the book work? You can't handle all of it."

Oscar smirked. "If I need help I can call on you. Ach, you can

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Water-Soluble Powder
CONTAINING
GIBBERELLIC ACID

Penick now offers this promising new plant-growth stimulant in a convenient special formula that simplifies application in the small amounts required.

One level teaspoonful (2.5 grams) in one pint of water makes a solution containing 10 p.p.m. of gibberellin acids, the concentration that has generally produced the best response. Of course, other concentrations can be made by varying the amount used.

Production is ample now to accommodate the foreseeable demand. Price and other data on request.

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Agricultural Chemical and Insecticide Division
S. B. PENICK & COMPANY 50 CHURCH ST., NEW YORK 8
735 W. DIVISION ST., CHICAGO 10

come down earlier in the morning and not sleep so late. We will make more money."

Pat's eyelids closed slightly. His lips set. He picked up the nite owl drawing and held it before him. "Tillie stays!" he announced firmly.

"If you tear up that crazy 'Nite Owl' idea," Oscar said fiercely. "Ach, otherwise not."

Their eyes locked for a moment, then Pat tore up the night owl sketch and threw it in the wastebasket. It was plain to see he would rather have patient, efficient Tillie in the office, then an autocratic Oscar running everything, even with the night owl service.

He turned to the door, headed for the Slide Inn. He was not whistling gayly, as he had been earlier when he came to work. But Oscar looked slightly happy. The self satisfied smirk on his broad face was almost a smile.

FERTILIZER, LIME NEEDED FOR

Two Blades of Grass . . . Where One Grew Before

By ALBERT E. COOPER*

Professor of Agronomy Extension
Pennsylvania State University

"It should be the aim of every young farmer to do not only as well as his father, but to do his best, to make two blades of grass grow where but one grew before." So wrote the first United States commissioner of agriculture in the first yearbook of Agriculture printed in 1863.

In a broad sense, crop production per acre has increased. However, literally, since 1863, in Pennsylvania two blades of grass have not been made to grow where one grew before. Crop reports show that the average yield of hay was 1.3 tons per acre in 1869, 1.5 in 1905, and the same in 1950. The yield was 1.4 tons in 1955.

Higher yielding, better adapted varieties of legumes and grasses for hay have been commonly used on Pennsylvania farms for years. Therefore, other factors, such as soil and climate, must contribute to low hay yields.

VARIETY TRIALS.—In Pennsylvania seven forage variety experiment test plots were established in the spring of 1955. These seedings were made on privately owned and operated farms. The farmers did the necessary liming, fertilizing and seedbed preparation for their regular crops but left experimental areas unseeded for the variety test.

* Reprinted from the Spring, 1957 issue of Science for the Farmer, published by Pennsylvania State University.

The highest yielding variety of alfalfa in any one test produced 5.4 tons of dry matter per acre; this is equivalent to 6 tons of hay as a farmer would feed it to his livestock. The best variety of orchardgrass yielded 5.5 tons of hay per acre at one location. The highest yielding variety of bromegrass produced 5 tons of hay per acre. Pennscott red clover outyielded all other varieties of red clover at one location with a yield of 4.2 tons of hay per acre. The average yield of 9 varieties of alfalfa on 7 experimental areas was equivalent to 3 tons of hay per acre.

SOIL TESTS.—On Oct. 1, 1951 Pennsylvania State University College of Agriculture established a soil testing laboratory. In this laboratory more than 70,000 soil samples have been tested.

In 20 northern and high altitude counties of Pennsylvania, soils for the most part have been found too acid and too low in phosphorus and potash for good hay production. For instance, in one county 72.4% of all fields tested were too acid for efficient crop production, 91.5% were low or very low in phosphorus, and 72.4% had low or very low potash levels. Lime, phosphorus and potash are most important in crop growing but in hay production, where legumes are so important, they are a must.

Even in the best county of the twenty, 42.8% of the fields tested were too acid for efficient crop production. Complete soil tests, it was felt, might not represent a true picture of conditions because the number of samples was not sufficient. However, lime tests completed at one county agent's office on 5,500 fields in a period of two years, indicated a more serious problem. These tests showed that 85% of all fields tested were too acid for efficient crop production and too acid for alfalfa establishment.

In these 20 counties the major part of the farm income is derived from dairy. Pasture, grass silage and hay are vital to the survival of the industry. In these counties "two blades of grass have not grown where but one grew before." These counties are Pennsylvania frontiers in agriculture.

PRODUCTION INCREASED—Experimental research shows that production of mixed clover hay can be increased 332%, Kentucky bluegrass 136%, and timothy hay 53% by the proper use of lime alone. Soil testing must be emphasized to determine the need for lime and fertilizer. This, in itself, is not enough. A soil test is only as valuable as the use made of it. Only application of lime and fertilizer recommended in the soil test makes the test worthwhile.

These questions should be asked before any hay crop is seeded:

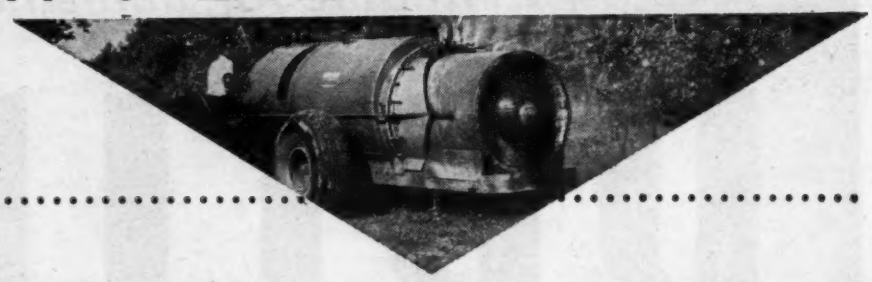
1. Was the soil tested?
2. Was the entire amount of lime recommended by test applied far enough in advance of seeding the forage crop to insure correction of the soil acidity?
3. Were sufficient quantities of fertilizer applied to establish and produce a good hay crop?
4. Has the best seed available been used?

These factors, and only these, can make "two blades of grass grow where one grew before."

WYOMING LEAFLETS

LARAMIE, WYO.—The University of Wyoming has published new leaflets with full-color pictures telling how to recognize and control six common plant diseases in Wyoming. The diseases, each covered in a separate leaflet, are bean root rot, wheat stem rust, bacterial blights of beans, potato ring rot, western wheat streak mosaic, and bacterial wilt of alfalfa.

FOLIAR APPLICATION...



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Today's outstanding

Profit Opportunity

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When you sell Grace Agricultural Grade Crystal Urea
A *Fast-Growing, Profitable* Market Opens For You

The use of Urea for foliar application on both vegetables and citrus is a fast-growing trend today. That's because this type of application gives the farmer a combination of top quality *and* maximum yields.

Grace Agricultural Grade Crystal Urea has several advantages. Its *low biuret content* (less than 0.2%) makes it safe; it is *especially formulated* for foliar application, and contains 46% nitrogen; it won't clog or damage spray equipment; and it is *completely* water soluble.

Sell Grace Agricultural Grade Crystal Urea . . . and take advantage of these new profit opportunities. Here's how Grace helps you:

1. NATIONAL ADVERTISING *pre-sells* for you! Grace advertises its Agricultural Grade Crystal Urea to both vegetable and fruit growers nationally, with consistent, full-page, color advertisements. This *pre-selling* makes your job easier . . . more profitable.

2. SELLING AIDS ARE YOURS—FREE! Effective, tested selling aids like this informative booklet are yours free, for distribution to your customers. Grace gives you what it takes to do the job *right* . . . to establish your business as *headquarters* for foliar sprays.

WRITE FOR DETAILS

Grace Chemical Company

A DIVISION OF W. R. GRACE & CO.
MEMPHIS, TENN.

What's Been Happening?

This column, a review of news reported in Croplife in recent weeks, is designed to keep retail dealers on the regional circulation plan up to date on industry happenings.

American Potash & Chemical Corp., Los Angeles, announced that it will double its production capacity of granular potash at its Trona, Cal. plant. The project is expected to cost about $750,000, which is part of the company's current improvement program expected to total some $3,500,000.

Sales of liquid insecticides used for household and sanitary purposes totaled some 17 million gallons in 1956, the Chemical Specialties Manufacturers' Assn. announced at its midyear meeting in Chicago. Big gains in the sale of space sprays were tallied, the 1956 total being 4,188,304 gal. as compared to 1,797,515 gal. in 1955.

San Francisco Chemical Co., an affiliate of Stauffer Chemical Co., solved successfully the problem of beneficiation of some 700 million tons of phosphatic material located in Utah. The company was considering an offer to purchase electrical energy from the Flaming Gorge Dam for use in production of elemental phosphorus. The dam, located over the Utah line in Wyoming, has a potential of some 80,000 kw.

In another part of the U.S., investigations of phosphate ore deposits were considered "promising." The Beaufort Mining and Development Co., looking into ore deposits in Beaufort County tidelands of South Carolina, said that several months will be required before a final statement may be made about the quantity and composition of the material.

A pilot fertilizer mixing plant near Pittsburg, Kansas, was dedicated by Spencer Chemical Co. The plant will be used to develop research work on mixed fertilizer processing, and many of the findings will be made available to the fertilizer industry, according to Dr. John R. Brown, Jr., vice president in charge of research and development.

Dr. Charles E. Palm, formerly head of the department of entomology and limnology at Cornell University, was named director of the Cornell University Agricultural Experiment Station and director of research for the New York State Colleges of Agriculture and Home Economics.

Pesticide supplies for the 1957 season are ample for normal demands, according to the 1956-57 "Pesticide Situation" prepared by Dr. Harold H. Shepard, Food and Requirements Division of USDA, Washington, D.C. Production last year was larger than ever before, and domestic disappearance of materials rose considerably over the previous year. The total dollar value of pesticide exports was also up. Producers' over-all stocks at the end of the 1955-56 crop year were higher than they were a year earlier, the report said.

Nitric acid production in the U.S. showed a gain of 126,500 tons in 1956 over the previous year, it was announced by the U.S. Department of Commerce. The U.S. annual capacity on Jan. 1, 1956 for production of nitric acid comprised 3,019,000 tons in commercial facilities and 2,263,000 tons in government (primarily ordnance) facilities. The total of these capacities represented an expansion of 77% over the facilities in existence on Jan. 1, 1951.

Spokesmen for the USDA, the Food and Drug Administration and the National Apple Institute declared that the use of modern pesticidal chemicals is much less hazardous than was the application of older toxicants before laws were brought into effect. Spokesmen representing the organizations were Dr. E. F. Knipling, USDA entomologist; George P. Larrick, commissioner of Food and Drug Administration; and Truman Nold, executive secretary of the National Apple Institute, all of Washington, D.C.

Special stress on better selling methods was emphasized at the Virginia Beach, Va. meeting of the Carolinas-Virginia Pesticide Formulators Assn. May 13-15. A panel of industry people discussed development of new markets to counteract reductions in cotton and tobacco acreages; consignment selling, guaranteed sales policies, quantity discounts and abnormally high sales costs.

Appropriations for the soil bank's acreage reserve phase were killed for the next fiscal year by the House of Representatives, but the fund for the conservation phase of the program was left intact. Ezra Taft Benson, Secretary of Agriculture, opposed the cut, stating that the soil bank had not yet had a chance to prove its worth.

The number one cotton producing county of the U.S. was Kern County, California, which in 1956 accounted for 516,578 running bales, according to the U.S. Bureau of Census report. Of the 50 leading counties named in the report, 20 were in Texas, eight in Arkansas, seven in Mississippi, six in California, four in Missouri, three in Arizona and two in New Mexico.

Three government agencies joined in a public statement to endorse the safety of methods established for conducting the cooperative state-federal gypsy-moth program in the Northeast. Purpose for the statement was to calm down excited residents in some of the affected areas who feared that the spray might bring illness and death to human beings, fish and wildlife.

A determined campaign to battle the imported fire ant was prepared by eleven Southern states now affected by this destructive pest. The Federal government was requested to contribute $12,000,000 annually for its part in a Federal-state cooperative program which would be continued until the ant is eliminated.

International Minerals & Chemical Corp. announced that it would start sinking a shaft for a new potash mine in the Canadian province of Saskatchewan. The new mine, which will operate at a depth of some 3,000 feet, will be situated on 450,000 acres about 150 miles east of Regina, Sask.

Northwest Nitro Chemicals, Ltd., Medicine Hat, Alberta, Canada, announced plans for a $150,000 addition to its plant. The new unit will permit production of four new phosphate-nitrogen fertilizer formulations, according to T. L. Brook, president.

Stauffer Chemical Co. installed a new unit to produce granular insecticides, at Omaha, Neb. Granular formulations of DDT, aldrin and heptachlor will be made at the plant.

Scientists Speak Against Reclaiming Tidal Marsh Land

CHARLESTON, S.C.—Minerals deposited by the sea in tidal marshes in the Southeast make them unsuitable for growing "dry-land" crops, two Dutch soil scientists said here. But despite the pessimistic analysis of marshland prospects, the general outlook for agriculture in the Southeastern coastal plain found a champion.

Dr. C. E. Kellog, head of soil science work for the U.S. Soil Conservation service, said:

"The Southeast and Southwest are on the verge of tremendous progress in agriculture. Better water control methods, cheaper fertilizers, refrigeration and the emergence of paper as a top commodity combine to give this area tremendous advantages.

"Water control will result in increased irrigation. Cheaper fertilizers will mean lower per-unit costs. Refrigeration permits freezing seasonal products for future distribution. The increasing use of paper offers more and more cash returns from pine forests."

The scientists, on a tour of the Atlantic and Gulf coastal states, studied marshes, reclaimed rice fields, and drainage systems along the coast.

Deposits of sulphates left by seawater, which when dried out later become sulphides and generate plant-prohibiting sulphuric acid, pose one problem in producing crops, the Dutch scientists, Dr. C. H. Edelman and Dr. J. M. Van Staveren said. Another problem is that such soil contains a tremendous amount of vegetable matter (peat or humus) which oxidizes and tends to make the land subside unevenly, making cultivation difficult.

Dr. Edelman said the acids could be counteracted by use of lime; however, up to 30 tons per acre would be required at costs which would make the operation economically unsound.

"Until you have a very serious shortage of land in this country, I believe you will find it unwise to attempt to reclaim these marshes," Dr. Edelman said.

Until now, farm service workers in this area have felt that vast marsh areas might be developed as crop lands.

Awards Made in G.L.F. Future Farmers Program

VERONA, N.Y.—Nine New York Future Farmers of America chapters receive plaques here recently for outstanding service to agriculture. The nine chapters were cited as those judged best of 82 in the state completing crop demonstrations last year to demonstrate recommended crop practices.

Garland Clarke, northeastern area manager of Cooperative G.L.F. Exchange, Ithaca, presented plaques to chapters of Addison, Akron, Dundee, Holland Patent, Manchester, Marion, Phelps, Port Byron and Wayland. Each chapter has received a $50 check. Nine chapters judged in the second 10% have received $25 awards and 15 others received honorable mention.

G.L.F. service agencies provide up to $30 of materials for each chapter's demonstration. Members grow crops on plots comparing recommended practices with the usual methods followed by farmers of their area. Demonstrations are used for teaching school classes and farmers. The $10,000,000 program has been sponsored by G.L.F. and its agencies since 1953.

DELAWARE FIELD DAY

GEORGETOWN, DEL.—The annual farm field day at the University of Delaware Substation in Georgetown will be held Aug. 14, George M. Worrilow, director of the Delaware Agricultural Experiment Station, has announced.

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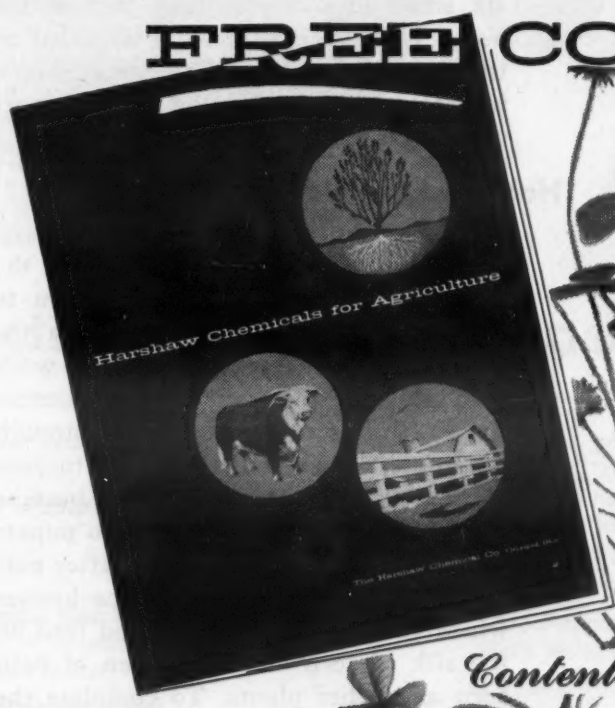

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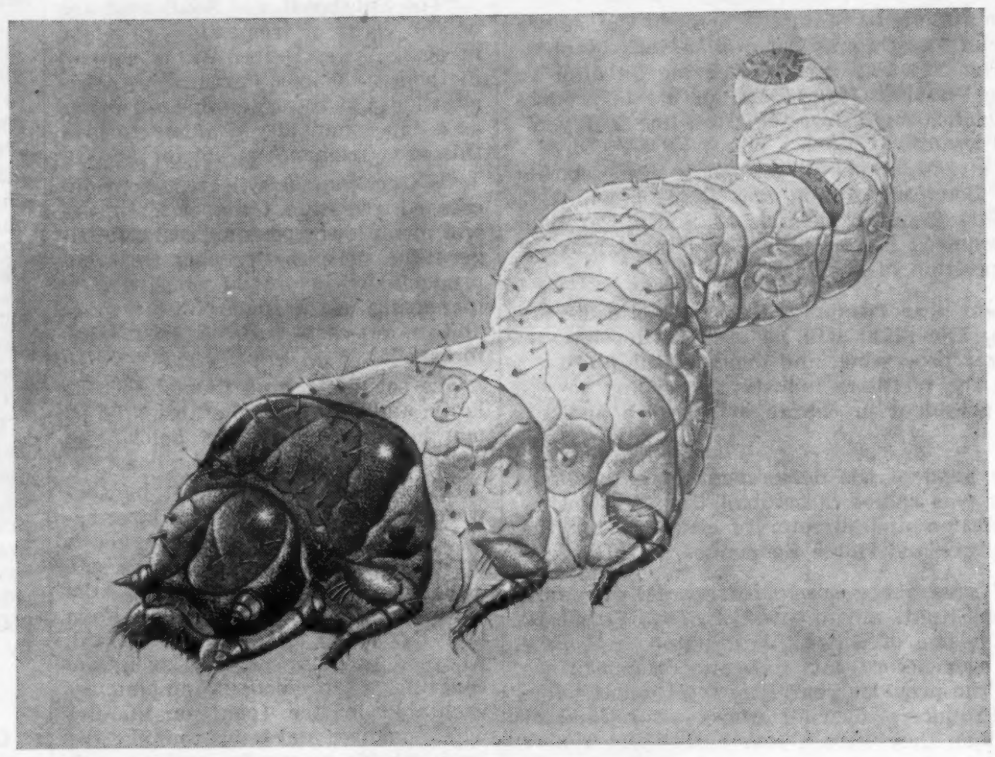
BUG OF THE WEEK

Mr. Dealer—Cut out this page for your bulletin board



CORN ROOTWORM LARVAE

How to Identify

The larvae are about one half inch in length, with a yellowish-brown head and six small legs on the fore part of the body. The skin is somewhat wrinkled on the body of the worm. This insect occurs in greatest numbers in the northern part of the Mississippi Valley.

Habits of the Rootworm

Eggs are laid in the fall of the year and are deposited in the ground around the roots of corn. They are not known to be deposited anywhere else. When the eggs hatch in the spring, the larvae work through the soil until they encounter the corn roots and then burrow through the roots, leaving small brown tunnels in their wake. About July, they become full-grown and leave the roots to pupate in cells in the soil, and by the latter part of July or August, they become beetles which emerge from the soil and feed on the silk of corn and the pollen of both corn and other plants. To complete the cycle, the beetles lay eggs in September and October, then succumb to frost a little later while the eggs await the coming of spring to begin anew.

Damage Done by Corn Rootworm

As mentioned previously, the worm makes tunnels in corn roots, which in turn slows the growth of the crop. Plants are undersized and weak, so that heavy rains will topple them because of the damaged roots. The larvae are also known to carry a serious disease of corn, bacterial wilt.

Control of Corn Rootworm

Both cultural and chemical means of control are employed to keep down both the insect's population and the damage it does to corn. Since this pest lays its eggs only in cornfields, and the larvae feed almost entirely upon the roots of corn, crop rotation acts as a deterrent in holding down populations. However, larvae have been found in the roots of corn in fields where oats had been grown the year before. Excellent results have been obtained through the application of soil pesticides, with state recommendations varying considerably as to timing and materials. Corn growers should be urged to consult with county or state authorities for precise recommendations for pesticidal application in the locality, in order to conform fully to state and federal laws concerning residues.

Illustration of Corn Rootworm Larvae furnished Croplife through courtesy of Velsicol Chemical Corporation, Chicago.

The above insect is one of 32 appearing in "Bug of the Week" booklet, No. 2 now available from Croplife Reprint Dept., P.O. Box 67, Minneapolis 1, Minn. Price 50¢.

PRICING AND PROFITS IN STORES

(Continued from page 9)

urse, every situation can't be ex-cted to follow that pattern.

"That's all very interesting," you ay say, "but what does it mean to e as a small retailer?"

The answer is this: Your best bet r experimentation with price-vol-me-profit relationships is usually in e field of distinctive, or specialty d shopping goods, where you are e only seller of an item, or at least e of a very few.

THE ONE-PRICE POLICY: If you llow a one-price policy, you offer ch item at a single fixed price to erybody who buys in the same antity. You give no "special" prices "special" people. To many mer-hants, single fixed prices are custo-ary and logical. They are evidence fair and equal treatment for all. esides, haggling is time-consuming th for the salesperson and for the stomer. However, conditions today ake it necessary to consider care-lly just where you stand on the one-rice policy. Most small retailers be-eve in one price to all comers for a ven article. But sometimes it is ard to "stick to your guns" when a stomer says:

"Your prices are out of line. I can over to the 'PDQ Sales Company' ght now and for $12.95 get the very me item you're trying to sell me r $15. I'm ready to give you $12.95, sh on the barrelhead. I want the rticle and I'd like to do business ith you. How about it?"

Many small retailers under this nd of pressure would find it hard to fuse to "shade" their prices. Hence, is essential to make up your mind advance what kind of a store you ant to have. You can't have both a xed and a flexible policy. You have decide before you get into a bar-aining situation whether or not you ill mark down a line just on the asis of what a customer says. Some tores do. Others refuse to consider rice changes until they have checked on what competition is really do-g. Many feel that over the years ey would be better off if they were compete on a broader basis than st price. They believe that continu-us price cutting would not yield an dequate return on the capital in-ested in the business. They claim at merchants who "shade" prices, ven on only a few items, soon find at customers regard all prices erely as starting points for hag-ling.

THE MARKUP PROBLEM: The arkup problem is an old story to all retailers. It is always impor-nt to pricing and to profits, but it an be handled in different ways.

Most small merchants find it pref-rable to handle markup and pricing rgely on an individual basis. The eason is the many factors which in-uence the decision—factors which ary according to the goods involved. or example, some of these influences e what your competition is doing, ow the item fits into your price-ning setup, the promotional or leader" value of the item, the sea-on of the year, and whether resale rice maintenance is exercised by the anufacturer.

However, even though most items e marked up individually, it is use-l to obtain some average markup s the result of your over-all opera-ons. This means that you should y to balance slim margins on some ems with wider margins on others that the combined volume pro-uced will maximize your total profit. ou may need to carry some unprofit-le items just because they regular-bring into your store customers ho buy other things, too. With ods for which you are the exclu-ve dealer, or where you don't have uch direct price competition, you ay find that you can take a longer arkup, still maintain volume, and us add to profits.

PRICE LINING: The term "price lining" has come up earlier in connection with markup. Essentially, it means setting prices on given classes or lines of merchandise and marking all items at one of these established prices—with nothing priced at points in between. It works because most customers have narrow ranges of prices which are acceptable to them. It offers both opportunities and problems.

Price Lining Opportunities: For example, there is a large group of men (and women buying gifts for men) who are willing to pay from $1.50 to $5 for a necktie. Within these limits, of course, the demands of this group vary. But if you set prices for an assortment of ties at $1.50, $2.50, $3.50, and $5 only, most members of the group would accept these four prices as satisfactory. Other groups, of course, might look for higher or lower lines.

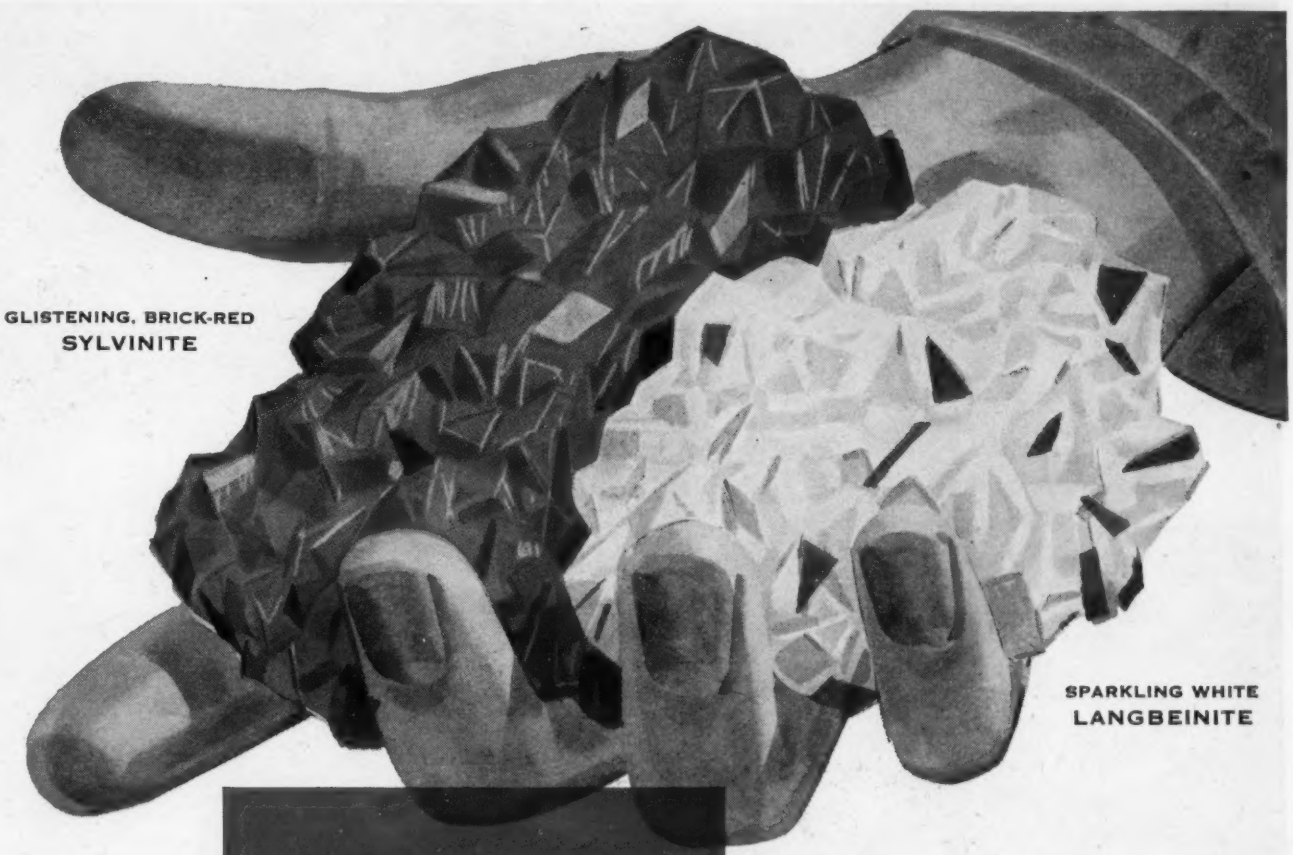
Price lining is best suited to "shopping goods"; that is, to merchandise of which customers want to look at style, color, size, weight, material, and the like before they buy. It can work well with inexpensive gift items, clothing, and home furnishings in the popular price ranges.

There are various advantages to recommend price lining. For one thing, it helps avoid confusion both on the part of the salesperson and on the part of the customer. Prices are simplified. There are seldom more than two or three prices to choose from. Often only a single price is feasible. For another thing, increased sales can result because of (1) bigger assortment in each price line, and (2) greater ease in getting customers to make decisions and buy.

In addition, the planning of stock levels can be made easier by the demand groupings which develop at the relatively few selling prices. Similarly, price lining can lead to reduced expenses because of smaller stock requirements, greater turnover rates, fewer markdowns, quicker sales, and simplified buying and marking procedures.

Price Lining Problems: One drawback is the unsuitability of setting price lines on prestige items and high-style goods where price is a minor consideration. Thus, in the "real" jewelry market — as distinguished from novelty and "costume" jewelry—most customers are not looking for assortments in certain price brackets. Typically, they want one-of-a-kind items with particular characteristics. Likewise, with costly antiques, price lines seldom fit the usual buying psychology. Customers don't generally think in terms of: "What can I get for $50?" They start instead from an inquiry like: "Do you have any English sterling silver of the Queen Anne period?"

Another question is the difficulty of "trading up" because of the rela-



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From SYLVINITE . . . standard and granular muriate of potash.

From LANGBEINITE . . . SUL-PO-MAG® (double sulphate of potash-magnesia).

From BOTH ORES . . . sulphate of potash.

These two basic potassium ores can supply *your complete potash needs* for mixed fertilizers. After mining and refining, they are available in these four forms:

1. Standard 60% K_2O Muriate of Potash for mixed fertilizers.
2. Granular 60% K_2O Muriate of Potash for mixed fertilizers and direct application.
3. 50 to 52% K_2O Sulphate of Potash for *premium* mixed fertilizers.
4. SUL-PO-MAG (22% K_2O—18% MgO)—premium potash and water-soluble magnesium for *premium* mixed fertilizers.

You can get *all four* of these products, for all your potash needs, from *one source* of supply. Other advantages: uniform quality in every pound; time-saving convenience in ordering and scheduling, and personalized sales and service from experienced people at your nearest district sales office:

ATLANTA, GA.— 1325 Fulton National Bank Bldg., M. S. Malone, *District Sales Manager.*

CHICAGO, ILL.— 20 North Wacker Drive, C. E. Martin, *District Sales Manager.*

NEW YORK, N. Y.— 485 Lexington Ave., W. W. Chadwick, *District Sales Manager.*

SHREVEPORT, LA.—418 Market St., J. K. Lindsey, *District Sales Manager.*

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tively big jumps between lines. For instance, you might set $9.95, $13.50, and $16.85 as prices. There may be some customers who would pay more than $9.95 but not so much as $13.50, or more than $13.50 but not up to $16.85. With only the three lines, you might lose chances to make, say, a $15 sale.

Another problem is inflexibility in a rising or falling market. For example, you might set one price line at $9.95 and a higher one at $13.50. Goods retailed in the first line might cost around $5.89 and those in the second around $8. A 10% rise in wholesale prices would bring the cost of your first line up to $6.48. To price it at $13.50 would be too high, competitively. But if the goods are marked at your lower price line ($9.95), your margin is only $3.47 compared with $4.06 previously obtained.

MEETING PRICE COMPETITION: The question which numerous small retailers are asking today is, "How am I going to meet competition from the price cutters when I can't go down to their levels without losing money?"

One answer is: Do things better than the other fellow. What things? Here are 10 plus-values which help in reducing the effect of price competition:

Specialization: In some cases, distinctive merchandise and private brands will help to offset price competition. To many shoppers the most significant feature of any price is the way it compares with other prices quoted for the same article. But if the article you sell has different features—and is, in fact, not identical with what your competitors sell—the significance of price comparisons can be reduced.

Personal Salesmanship: The human element is important, too. This means doing a more effective job than your competition on personnel selection, training, and motivation.

Timing: Doing the right thing at the right time often isn't easy, but it is nevertheless important in meeting price competition. For instance, you can gain an advantage by following weather conditions and coordinating your advertising with them. Likewise, skillful timing of special sales can be a big asset. Good timing helps you avoid overstocking goods which were once popular but which are now meeting increasing sales resistance. It also helps you capitalize on new merchandise coming into the market for which strong price competition has not yet developed.

Sensitivity to Trends: Recent trends have had great influences on retailing; for example, interest in do-it-yourself activities, hi-fi, radio and phonograph equipment, gardening and amateur photography. Watching these trends and adapting operations to them have paid off in many small stores.

Prestige: Here again your objective is to do something the other fellow can't do. Partly it is a matter of always seeking to improve the quality and appearance of the merchandise you stock; partly it is a matter of working steadily to improve the impression your store makes on customers. Attractive display, topnotch maintenance, good lighting, and quiet selling conditions are also involved. And don't overlook the effect of your store front and the "personality" of your advertising.

Services: Among the most effective means of combatting price competition are such services as delivery, installment and repair work, and permitting returns and allowances.

Convenience: People are often willing to pay a little more when it is easy for them to shop. Nowadays this often means parking facilities more than anything else. A handy place to leave the car is extremely important to most customers. In addition, you should not ignore the possible value of night openings.

Selling Conditions: Worthwhile improvements can often be made in this area. Consider, for instance, extra emphasis on impulse selling, better point-of-sale displays, face lifting and streamlining of stores and shopping districts, and appropriate simplified selling techniques such as self-service and automatic merchandising.

Expense Control: You may be able to find ways of managing your costs and expenses more skillfully so as to provide larger margins. Among the techniques to investigate are machine operations for record-keeping, better control of inventories, and new techniques for reducing losses from pilferage and damage.

Consumer and Community Relations: This is a combination of good will and customer loyalty, effective public relations, and the acceptance by the business of its proper responsibilities to the community in which it operates. The concept of rendering a useful service rather than simply making a profit is fundamental to improving consumer and community relations.

OVER THE COUNTER

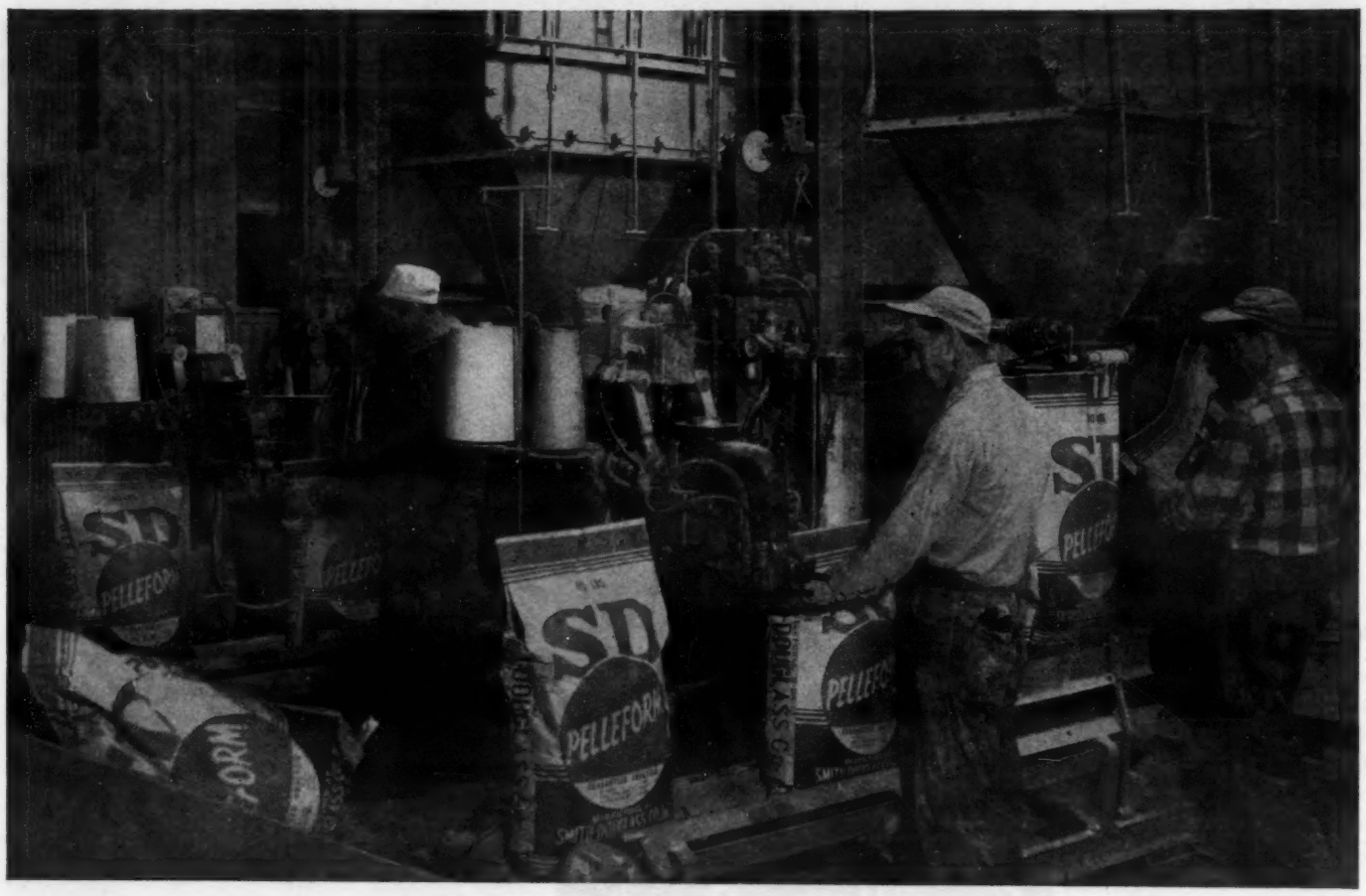
(Continued from page 9)

rected campaigns toward winning back trade from inactive customers and have been amazed what courtesy, contact and persistence do in such cases. Quite a few firms get thousands of dollars in additional trade from customers who came back to buy after their grievances had been discovered and adjusted and their business again solicited. There certainly is a lesson in this experience for the small retailer who does not want to lose too many customers.

5. New customers are gained, too. When the farm dealer wins back an inactive customer, he can be quite sure that such a customer will sooner or later recommend him to newcomers. In this way, winning back the trade of the inactive customer also is a step in winning more new customers. It costs considerable to get a new customer from "scratch" so to speak and the more "satisfied" customers which a dealer has, the more new customers they will send his way, at a very low promotional cost per customer.

The dealer who begins to pay attention to his customers and to ways to keep them satisfied will realize more than ever before that while he may have a quality product, the product is not sold to the farm, orchard or garden. It is sold to people, and these people must be won over through friendliness, service and good will plus satisfaction. After selling his products, the wise dealer needs to make sure that his customers are satisfied. He cannot take anything for granted on hearsay in this competitive age. He must have the means, or find them of contacting customers to find out how they regard his product and service.

This is the challenge of the day for every dealer. If his annual number of inactive accounts declines, then he will know he is doing a fine job of customer relations. If the number grows, he will know this is a danger signal.



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How would you like *this kind* of money-saving speed and accuracy? In actual plant operation, the Bemis FERTILIZER PACKER is filling and closing sixteen to eighteen 80-lb. bags per minute . . . . . and holding consistently to a weight tolerance of plus or minus 4 oz.

And now...
Bemis JETROL injector...

The new, better way to add liquid insecticides to fertilizer.

JETROL, a Bemis-designed attachment for the new Bemis FERTILIZER PACKER, automatically sprays liquid insecticide *through* your fertilizer as it falls into the bag. JETROL measures exactly, diffuses thoroughly and minimizes toxic problems. You'll like its dependable performance.

Here are the pay-off features:

- Improved feeder design to insure maximum accuracy at higher speeds.
- Bemis-designed automatic sewing machine actuator and cutoff.
- Vee-Trof or Vee-Slat Conveyor optional . . . keeps bag upright unassisted.
- Stainless steel product-contact surfaces and functional parts with corrosion-resistant paint used throughout.
- One- or two-man operation.
- Size range: 50-, 80-, 100-lb. multiwall bags; 100-, 200-lb. textile bags.

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General Offices—St. Louis 2, Missouri
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FARM SERVICE DATA

Extension Station Reports

Figures made available on the farm e of lime and fertilizer show the rcentage of cropland that was eated at the time of the 1954 Cen- s of Agriculture. When West Vir- ia farms are compared with the sults of other states, they do better an the national average for lime t not as well for fertilizer, K. P. undage, extension specialist in farm anagement at West Virginia Uni- rsity, has pointed out.

In looking at the national figures or lime, only 2.2% of the cropland as treated. In West Virginia, the gure of 5.3% rated 13th for the ountry. It would take 20 years for ll cropland to get lime at this rate. oil tests show that more frequent pplications of lime are needed. eighboring states of Virginia, ennsylvania and Ohio all applied ime to a larger percentage of their ropland.

Fertilizer figures show treatment 20.3% of West Virginia cropland 1954 as compared to the U.S. aver- e of 26%. Thirty one states applied rtilizer to more of their cropland. ooking at Virginia, Pennsylvania d Ohio showed more than twice e percentage of cropland treated as West Virginia.

"Soil conditions and past treat- nts in the Mountain States show at regular programs of lime and rtilizer treatments are needed for gh yields that provide low-cost pro- ction," Mr. Brundage commented.

★

A second spray application, usually tween July 10 and July 25, is neces- ry for control of birch leaf miner, cording to George B. MacCollom, niversity of Vermont extension en- mologist. The first spray should be ade from 10 to 15 days after egg tch, generally about May 20 to ne 10.

★

Cause of a mysterious tomato dis- se that has been worrying growers d processors for years has been es- blished by a plant pathologist at e Pennsylvania State University. hn S. Boyle, associate professor of ant pathology, found that an abnor- al ripening disorder of tomato, com- only called internal browning, is used by the tobacco mosaic virus.

No cure is yet known for internal owning, Dr. Boyle says. He thinks will take some time to develop a medy. On one hand, there are no es of tomato immune to tobacco osaic virus from which to develop ease-resistant plants. Inoculation accination) has been tried with ung plants without success. And rus decreases yield when introduced to young plants.

The disease has been carefully stu- ed under natural conditions on rms in southeastern Pennsylvania, well as in laboratories and on test ots of the Agricultural Experiment ation.

Dr. Boyle says the disease is wide- read in the eastern United States d that many commercial growers ve suffered serious crop losses. The owning causes an unattractive ap- arance and the tissues of the fruit come tough and cork-like, making unsuited for either the fresh mar- ts or the processors. There is no nger to human beings who eat in- cted tomatoes.

Working on the project with Dr. yle was David C. Wharton, of oca, who received his doctor of ilosophy degree in plant pathology t June.

★

Farmers in Northeast states should alerted to the presence of witch- weed, a new and serious pest of corn, in North and South Carolina. The weed attacks many plants by attaching itself to the roots and reducing and stunting growth. Affected plants are stunted, yellowish and wilted, and appear to be suffering from drouth.

Establishment of the pest in the Northeast states would be a serious threat. Farmers should be advised to look for a weed that answers the description of the witchweed. It should be growing close to affected plants. They should notify a county agricultural extension service office if they think they have found a witchweed. They should not move the plants or weeds from the field, since this may spread the pest.

★

The pea enation mosaic virus is one of the most destructive diseases of processing peas in New York. Surveys in commercial plantings indicate virus infections ranging from 30 to 60% of the pea plants, with the pea enation virus found in at least 90% of the diseased plants. The virus is carried over winter by a number of host plants, according to Cornell and State University scientists at the Experiment Station at Geneva.

Alfalfa, vetch and white clover are the chief overwintering hosts, they say. Sweetclover, crimson clover, broadbeam, rough peavine and garden peas may also harbor the virus. On the other hand, red clover, black medic, alsike clover, birdsfoot trefoil, big trefoil and red kidney beans appear to be free from infection.

"The distribution of the three primary host plants throughout western New York, either as crop or weed plants, could explain why the pea enation mosaic is so prevalent year after year in that part of the state," continue the station workers.

The fact that alfalfa generally shows no recognizable symptom of this virus accounts for failure to understand heretofore the role played by alfalfa in the spread of the disease. It has been known for sometime that aphids are the major factor in the spread of virus diseases in peas, and some success in reducing losses has followed their control. Accurate timing of sprays has been difficult, however, without more exact knowledge of possible sources of infection. The studies reported by the station workers throw light on this point.

HIGH COST OF WEEDS

GENEVA, N.Y.—Weeds caused an estimated loss in New York crop yields last year of nearly $10 for each harvested acre of corn, small grains, hay and pasture, according to S. N. Fertig, Cornell agronomist.

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WORLD REPORT

By GEORGE E. SWARBRECK
Croplife Canadian and Overseas Editor

An ammonium sulfate fertilizer plant is to be constructed in the Philippines, part of the over-all plan for the industrialization of the islands. Asking for tenders for machinery, equipment and materials is the National Power Corp. located at 161 Bonifacio Drive, Port Area, Manila. Closing date is June 18.

Needed are a complete electrolytic hydrogen plant; a complete nitrogen plant; a compression and ammonia synthesis plant capable of producing 43 tons of anhydrous ammonia a day from the hydrogen and nitrogen gases supplied by the first two plants; a sulfuric acid plant to produce 130 tons a day, and an ammonium sulfate plant with a capacity of 150 tons a day.

Trinidad is another area where plans are progressing for the construction of a fertilizer plant. It is intended to use natural gases from the island's oil industry to produce ammonia, urea and ammonium sulfate. The ammonia output is expected to be in the region of 100 tons a day. Construction is expected to start in the near future. The capital investment will be in the region of $4 million.

Trinidad imports most of its fertilizer requirements at the present time from Western Germany.

Dead Sea Development Sought by Authority

The government of Jordan is offering concessions to U.S. investors for the development of potash deposits and other minerals from the Dead Sea. The International Cooperation Administration has assisted in the survey of the potentialities of the area. Reserves of potassium chloride have been assessed at 9 billion tons.

In order to develop these deposits the Jordanian government proposes the construction of a plant having an annual potash production capacity of 70,000 tons. Sufficient land for future expansion, fresh water and labor are stated by the authorities to be in plentiful supply.

Israel is actively engaged in potash production in the Dead Sea area also. In recent months production has been upwards of 7,000 tons a month, but during March the output fell away due to heavy rains. By the middle of March, Israel had shipped 25,000 tons of potash into overseas markets.

Indigenous Materials Use in Australia

Australia wishes to encourage the use of indigenous materials for the production of sulfuric acid. Howard Beale, minister for defense production, states that the government is to abolish the ceiling of $1,680,000 a year paid as a bounty to users of local materials. He says that, because sulfur purchases involve a substantial drain upon dollar funds, each manufacturer desiring to import brimstone will have to seek an import license from the trade department.

Before a license will be granted, it will be necessary to consider whether the conversion of existing or proposed plants to the use of indigenous materials will be practicable, taking into account the supply, demand and competitive position in particular areas.

The tariff board is now considering the application of the enlarged bounty system.

Canada's CIL To Enlarge

Canadian Industries, Ltd., a major fertilizer producer in the Dominion is to build a new sulfuric acid plant at Beloeil in the province of Quebec. Capacity will be set at 150 tons a day and work is expected to start soon.

CIL cites the growing demand and the shortage of supply of acid in Canada as motivating its action. This is the second sulfuric acid plant which CIL has announced recently. Another unit is being constructed at Copper Cliff, Ont., and this will double the output there. The company has another plant at Hamilton, Ont.

Briefs . . .

The fertilizer firm of Empresa Nacional Calvo Sotelo of Madrid, Spain is planning to invest a large capital sum in the erection of a nitrogenous fertilizer factory.

★

A pilot scheme, aimed at assessing the possibilities of producing phosphate fertilizer from deposits found at Sukulu, near Tororo, Uganda, is planned by the East African Industrial Research Organization. The work will be done in the organization's new laboratories at Nairobi, Kenya.

★

A. McA. Batty, director and manager of Cuming Smith & Mt. Lyell Farmers Fertilizers, Australia, is on his way to England to study the latest methods of fertilizer and chemical manufacture. He then proposes to come to the U.S. where he will talk with members of the industry and with officials of the U.S. Department of Agriculture on future trends in the production and application of fertilizers.

Sign-Ups Under Way

MORGANTOWN, W.VA.—West Virginia farmers are signing up for the 1957 Hybrid Corn Yield Contest and trying to qualify for membership in the West Virginia 100-Bushel Corn Club, R. J. Friant, Extension agronomist at West Virginia University, reports.

The contest is designed (1) to promote interest in higher corn yields in West Virginia; (2) to increase the use of West Virginia grown and certified hybrid corn seed; (3) to make the most efficient use of fertilizers and liming materials applied to corn land and (4) to acquire knowledge concerning the best methods for obtaining the highest and most profitable yields of corn.

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Arthur F. Arnell

JOINS FRONTIER—Arthur F. Arnell has joined the Frontier Chemical Co., Wichita, Kansas, as a sales representative for the Minneapolis-St. Paul territory, according to an announcement by M. E. Clark, vice president — marketing. He replaces John B. Childress who has been promoted to product manager — industrial chemicals for Frontier. A native of New York state, Mr. Arnell spent four years as technical sales representative, agricultural chemicals division of the Shell Chemical Corp. prior to coming to Frontier. He was graduated from the University of Delaware in 1953 with a bachelor of science degree in entomology and plant pathology.

Ernest Hart Heads Manufacturing Chemists

WHITE SULPHUR SPRINGS, W.VA.—Ernest Hart, president, Food Machinery and Chemical Corp. was elected chairman of the board of directors of the Manufacturing Chemists' Assn. at its 85th annual meeting here. Harry B. McClure, vice president, Union Carbide Corp., was elected chairman of the executive committee. Gen. J. E. Hull, USDA (Ret.), full time president and a director, was reelected.

R. L. Murray and D. S. Frederick were elected vice presidents. Mr. Murray is chairman of the board, Hooker Electrochemical Co., Buffalo, N.Y. Mr. Frederick is vice president, Rohm & Haas Co., Philadelphia. M. F. Crass, Jr., full-time secretary-treasurer, was also reelected.

Directors elected for the term expiring May 31, 1960 are: Peter Colefax, president, American Potash & Chemical Corp.; John T. Connor, president, Merck & Co., Inc.; Lee V. Dauler, president, Neville Chemical Co.; David H. Dawson, vice president, E. I. du Pont de Nemours & Co., Inc.; Gen. Hull; Thomas S. Nichols, chairman of the board, Olin Mathieson Chemical Corp.; Mark E. Putnam, executive vice president, the Dow Chemical Co.; Charles Allen Thomas, president, Monsanto Chemical Co.; R. W. Thomas, vice president, Phillips Petroleum Co.; and George R. Vila, vice president, United States Rubber Co.

Henry Bower, chairman of the board, Henry Bower Chemical Manufacturing Co., was elected a director for a term expiring May 31, 1959.

Curtis W. Cannon, president, Frontier Chemical Co., and S. B. Penick, Jr., the New York Quinine and Chemical Works, Inc. (president, S. B. Penick & Co.), were elected directors for a term expiring May 31, 1958.

The Lammot duPont Safety Award plaque, for companies whose employees worked more than 2 million man hours annually, was presented California Spray-Chemical Corp., Richmond, Cal. at the MCA meeting.

Program Announced For Convention of Southern Officials

BIRMINGHAM—The 15th annual convention of the Association of Southern Feed and Fertilizer Control officials will be held at the Dinkler-Tutwiler Hotel here June 17-19. A large portion of the formal program will be devoted to fertilizer and pesticide topics.

Executive sessions will be held June 17, with Bruce Cloaninger, Clemson, S.C., in charge of fertilizers, Bruce Poundstone, Lexington, Ky., in charge of feeds, and Rodney Berry, Richmond, Va., in charge of pesticides.

Appearing on the June 18 morning program will be R. W. Ludwick, State College, N.M., association president, "There is Room for All to Ride;" W. E. Glennon, president of the American Feed Manufacturers Assn.; Paul Truitt, executive vice president of the National Plant Food Institute, "A Report from the NPFI;" L. S. Hitchner, executive secretary, National Agricultural Chemicals Assn., and Vincent Sauchelli, chairman, Chemical Control Committee, National Plant Food Institute, "New Technologies, but Same Old Chemical Control Problems in the Fertilizer Industry."

The program the afternoon of June 18 will include:

Howard T. Rogers, Alabama Polytechnic Institute, "The Need for Minor and Secondary Elements in Fertilizers for Alabama Soils and Crops as Related to Fertilizer Control Problems;" John I. Wear, Alabama Polytechnic Institute, "Solubility and Crop Responses to Fritted Material Containing Boron;" E. A. Epps, Jr., Baton Rouge, and Henry DeSalvo, Little Rock, "Minor Elements from the Control Official's Standpoint;" Maurice Rowe, Richmond, Va., "Liquid Nitrogens;" O. T. Guise, Jr., State College, Miss., "The Need for Simplification of Pesticides, Especially as Related to Insecticides for Cotton;" and R. P. Colmer, State College, Miss., "Use of Pesticides in Holland, Belgium, France and England."

Mr. Ludwick will be toastmaster at the June 18 banquet, at which a film will be shown by John Hunter, Tennessee Coal, Iron and Railroad Co., Sheffield, Ala. The group will visit that firm's steel mill the morning of June 19, and there will be a visit to the Tennessee Valley Authority pilot plant at Wilson Dam June 20.

FRUIT PROSPECTS DISMAL

BOSTON, MASS. — Massachusetts fruit farmers will suffer a loss of more than $600,000 this year with the dismal prospect that only a few bushels of peaches and fewer plums and cherries will be harvested, Walter S. Piper of the State Department of Agriculture, said. January's record freeze, Mr. Piper said, killed peach buds in all but a few areas of Bristol County and destroyed plum and cherry buds throughout the state.

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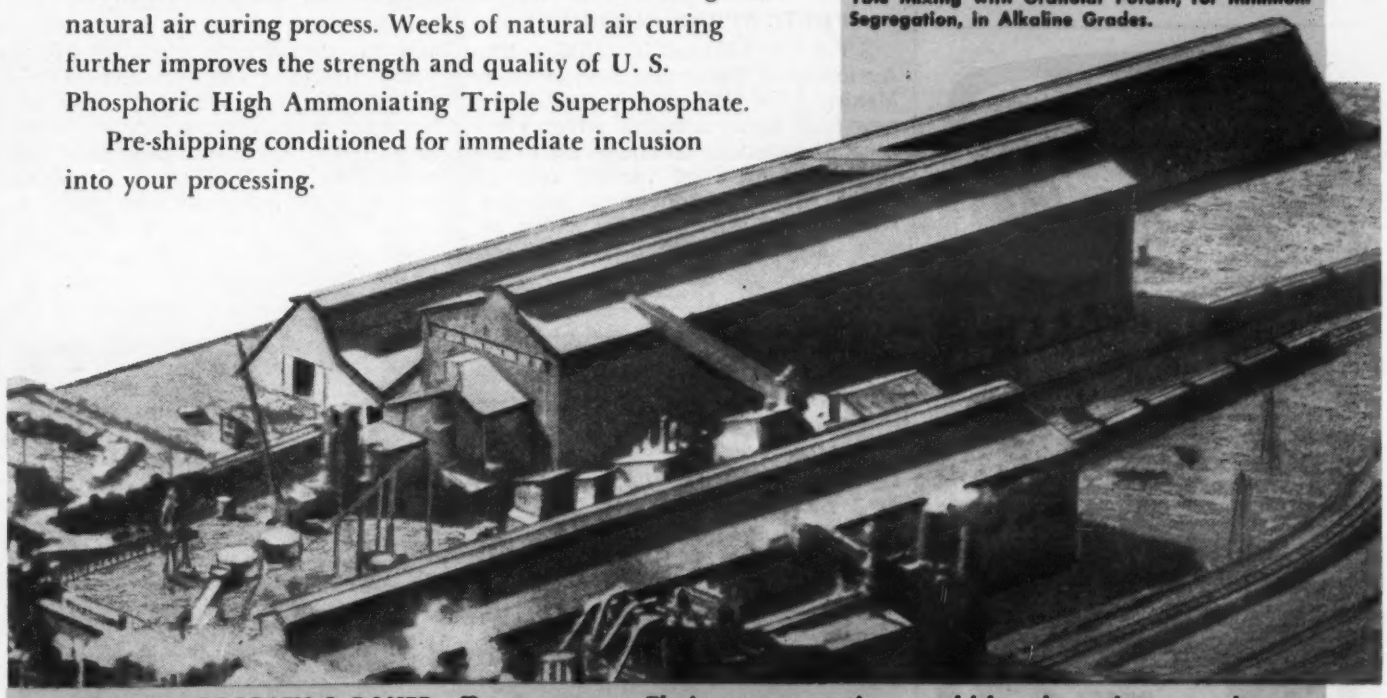

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Dr. Lowell G. Nelson

AGRONOMIST NAMED—The appointment of Dr. Lowell G. Nelson as a California Spray-Chemical Corp. district agronomist has been announced by Leo R. Gardner, Calspray's manager of research and development. Dr. Nelson, who joined the research staff at Calspray's Portland office June 1, is filling one of the new positions created by Calspray. Prior to joining Calspray, he was for 3½ years with the agronomy department of Washington State College. A native of Seymour, Wis., Dr. Nelson received his Ph.D. degree from the University of Wisconsin in 1953.

Colorado Sales

DENVER—Fertilizer use in Colorado during 1956 totaled 62,836 tons according to the Colorado Department of Agriculture. Included in this figure were 44,858 tons of materials, 16,293 tons of mixed goods and 1,685 tons of soil amendments and conditioners.

ILLINOIS BULLETIN

URBANA, ILL.—E. C. Spurrier, W. O. Scott and F. W. Slife of the University of Illinois agronomy staff, have prepared a new publication, "Chemical Control of Weeds and Brush." It discusses 19 different weed control chemicals, safety measures that should be taken in using them, adjustment of spraying equipment and other topics.

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Vegetable Research Shown at Field Day

DAVIS, CAL.—A peep into the future of vegetable production was afforded some 200 growers and seedsmen who attended Vegetable Crops Field Day recently on the University of California's Davis campus.

Touring the experimental field plots, the visitors saw a variety of research projects under way—the effect of anti-crusting agents on soils, the influence of gibberellic acid on lettuce and potatoes, progress in cover cropping or "green manure" experiments, use of systemic insecticides on potatoes, irrigation experiments, plant breeding projects and others.

Varying amounts of the new growth regulator, gibberellic acid, had been applied to a plot of lettuce. The visitors saw that the chemical, in solutions greater than 100 parts per million, eliminated the heading tendency of the plants and caused them to "bolt" into seed-stalk growth. If flowering is satisfactory on these "bolted" plants, the new chemical may find use as an aid in lettuce seed production, researchers said.

In one area where the soil was artifically compacted last year, tomatoes were recently planted. During the winter and early spring months, many different cover crops were grown in this area, then plowed under to act as "green manures" and soil conditioners. Growth and yield of the tomatoes will show the effect of these cover crops on relief of compaction and improvement of soil nutrition.

In another soil compaction experiment, the visitors saw tomato plants beginning to emerge through soil treated with TPS, an experimental anti-crusting agent. A marked improvement in soil surface texture in the treated rows could be seen.

On a potato plot, aphid counts were being made on plants treated with systemic insecticides. These tests aim to show both the protective effects of the treatments and their influence on emergence and plant growth.

Among a variety of fertilizer trials, one on lettuce showed strikingly that additional nitrogen can cause heads to develop with a much darker green color. Another trial on tomatoes demonstrated how under-the-seed placement of phosphorus gave the plants a big boost in early growth.

FRUIT SPRAY SCHEDULE

STATE COLLEGE, N.M.—The Agricultural Extension Service, New Mexico A&M College, has published a new fruit spray schedule which gives recommendations on chemicals to use for the control of various orchard pests, time of application, information on cultural practices which affect pest control and post-harvest sprays.

L. S. Brown F. H. Ludington, Jr. W. N. Brock

CHASE ELECTS DIRECTORS—The Chase Bag Co. has elected two of its company officers and a New York banker to membership on its board of directors. They are Leland S. Brown, vice president of the First National City Bank of New York; Francis H. Ludington, Jr., vice president of manufacturing, Chase Bag, and William N. Brock, vice president and general sales manager, also of Chase Bag. Mr. Brock has been with the company since 1934 and Mr. Ludington since 1946. Mr. Brown is a specialist in corporate banking.

Spring Rains Improve Utah Moisture Situation

SALT LAKE CITY—A storm that soaked many Utah localities in recent weeks appears to have ended, with the promise of better summer water supplies throughout the state. Most areas of the state are on the plus side after some of the wettest spring weather on record.

In adding up the benefits, the experts also were weighing the "minus" factor in damage to and delay in planting of some crops.

Precipitation at the weather bureau station in Salt Lake City broke its record for May with a total in the middle of the month of 3.18 inches. Previous mark for the station was 3.16, recorded in 1942.

The recent rains have greatly improved the soil moisture situation on range and farmlands throughout the state, have boosted irrigation water supplies and delayed drawing of stored water for current needs.

But, it was pointed out, spring planting in some areas was delayed by as much as two weeks. Planting of tomatoes and sugar beets in Salt Lake County has progressed under difficulties. Another problem accented by the storm is the stimulus to the growth of noxious weeds.

Aircraft Destroyed

DOS PALOS, CAL.—A fire at a hangar at Eagle Field near Dos Palos caused a quarter million dollars damage to agricultural aircraft. Floyd Perry, owner of the Serv-Aero Engineering Co., Inc., said that only office records and office equipment were saved from a blaze that destroyed five airplanes and half of another one, as well as shop equipment and parts. A second hangar 150 feet away where about $80,000 worth of airplane parts were stored was saved by firemen.

BEST CAMPAIGN—International Minerals and Chemical Corp. was honored at the recent 15th annual Chicago Federated Advertising Club award dinner for the "best farm paper product-selling campaign in color." J. C. O'Brien, left, president of CFAC and vice president of Carson, Pirie, Scott & Co., Chicago department store, presents citation to Frank O'Neill, center, IMC ad manager and William T. Dible, product sales manager for the Potash Division of IMC.

Thomas M. Ware New IMC Director; Three Vice Presidents Named

CHICAGO—Thomas M. Ware, administrative vice president of International Minerals and Chemical Corp., Chicago, has been elected a director of the company. He fills the vacancy created by the retirement of David M. Milton, who served on the board for the past 15 years.

The board also elected Dr. Milton LeBaron, vice president in charge of research; William Bellano, vice president in charge of engineering and Anthony E. Cascino, vice president in charge of marketing.

Mr. Ware, a graduate of Cornell University, joined IMC 10 years ago as an industrial engineer. He became chief engineer, then vice president of the engineering division before he was named head of the administrative division.

Dr. LeBaron, who joined IMC in 1942 and directed its research laboratory from 1950 until 1954, when he was named director of research, will be in charge of the corporation's entire research and development program.

Mr. Bellano joined IMC in 1953 as chief mining engineer of the engineering division. He later became the division's general engineering manager and production manager of the phosphate chemicals division. For the past year he has been director of mining and exploration.

Mr. Cascino came to IMC as director of marketing in 1956. Previously he had held the same position with the Crosley and Bendix Divisions of AVCO Manufacturing Co., and before that held a similar position with Bendix Home Appliances.

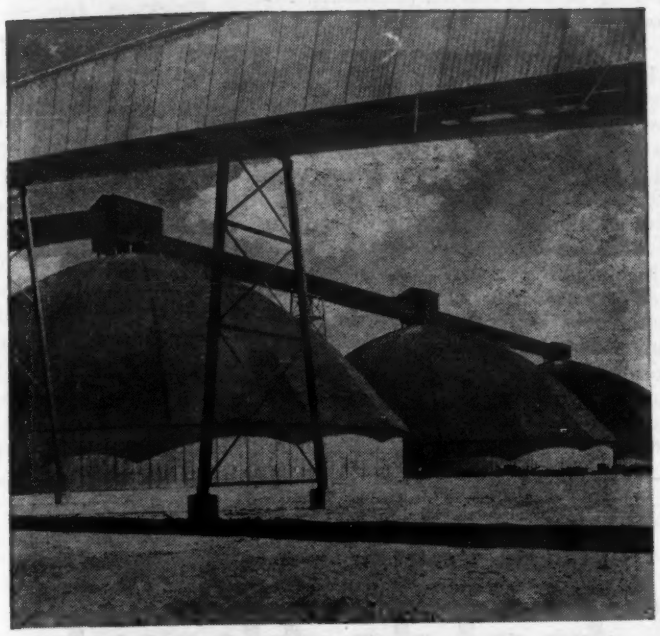
Robert W. Crabtree In New Hercules Post

WILMINGTON, DEL.—Robert W. Crabtree, manager of nitrogen product sales for Hercules Powder Co.'s explosives department, has been named manager of chemical sales, a newly created post in that department. He will be responsible not only for sales of nitrogen products but for sales of methanol and diversified chemicals.

Mr. Crabtree joined Hercules' explosives department in 1934 as a sales service representative in Arizona, working from the San Francisco office. He became sales service representative in the San Francisco office in 1941, and resident manager of explosives, Los Angeles, in 1948. He was appointed manager of nitrogen product sales in the company's home office in Wilmington in 1953.

AGRONOMY GUIDE

UNIVERSITY PARK, PA.—Pennsylvania State University has published the 1957 edition of the Agronomy Guide, which contains recommendations for use of commercial fertilizer, manure and lime in growing crops.



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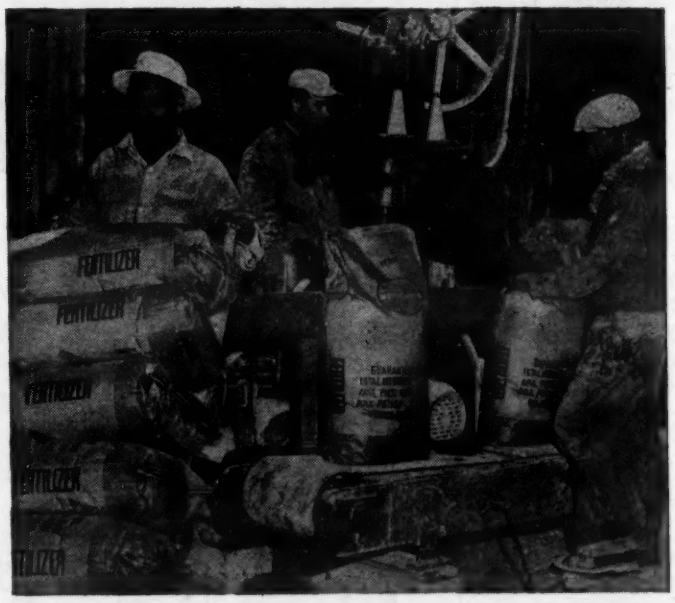

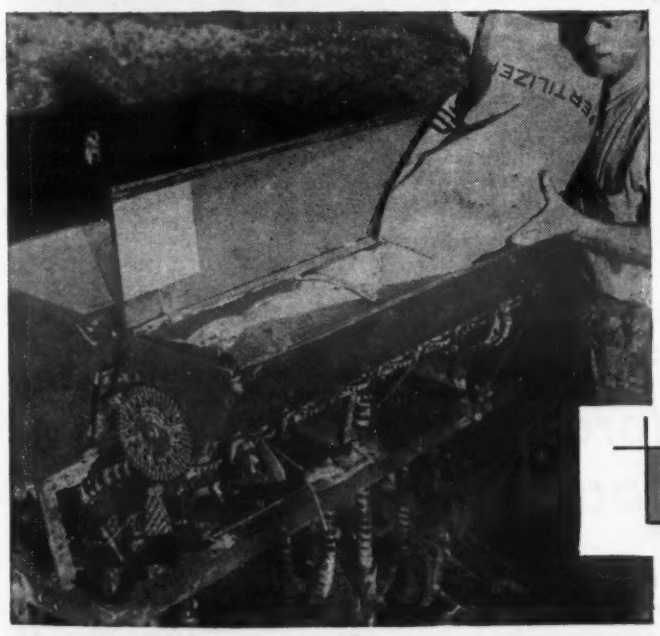

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FARM LEGISLATION

(Continued from page 1)

able to fend off opposition to the rigid high price supports as surplus supply builders through the disarming answer that before the condition would occur surpluses would be cut off through imposition of acreage allotments.

Although it was obvious to most observers that the acreage allotment provision was at best an uncertain cure for surpluses, the farm bloc stuck to its guns. As surpluses rose higher the farm bloc turned first to surplus disposal incentives, of which Public Law 480 was the most ambitious scheme, and then it seized on another temporary device — the soil bank. Together these two congressional concepts would swiftly correct the costly burden of surpluses of the basic commodities and lead the farm community back into the comfort of another period of 90% of parity support for the basic commodities without acreage controls, these proponents felt.

Waiting Game Played

During the period of alarm in the farm bloc and its turning first to this cure-all and then that, Mr. Benson played a slow waiting game, until the economic facts of life overwhelmed the farm bloc. The secretary explained to the general public that while he was able to dispose of huge quantities of the high-price-support created surplus, he was only able to do so at great public expense. Thus the taxpayer finally paid the bills for sales made below the cost of the commodities to the Commodity Credit Corp.

Congress, or better, its farm bloc, is in the unenviable position of fighting the Benson policies which patiently explain just what has been taking place and how much it is costing.

The farm bloc leaders are now limiting their replies to the Benson policies to repetitions of howls of concern for the farmer, who they say is caught in a cost-price squeeze. They tell their urban colleagues that the Benson farm program is bankrupting the farm communities, destroying the family farm and depriving the large industrial centers of the big farm market for the output of their mills and factories. There are loud claims that marketing margins are spreading and the farmers' share of the consumer dollar is shrinking.

Specific Analysis Disclosed

But they cannot talk out of existence the surpluses, nor can they explain away the heavy cost to the taxpayer. Now Mr. Benson is striking back in still restrained but seemingly unanswerable logic, setting forth more specifically his analysis of the farm problem to the Congressional farm leaders.

Mr. Benson urges consideration of two possible changes which suggest themselves to him. First, he would prefer that the law be changed to eliminate the basic crop concept entirely and would provide price support for those commodities as with all others between zero and 90% of parity, subject to the qualifications of the present law, which modifies any price support decision subject to eight principles for the non-basic and non-storable commodities.

But to disarm Congress of fears that he would suddenly throw all crops into the unprotected area of the market place, he asked Mr. Cooley to take a more cautious step and at least modify the present law by eliminating the flexible provisions of the act of 1948-49 and give the USDA discretion to support all farm commodities at between 60-90% of parity—if and when the eight qualifications of the farm law for the non-basic commodities are met.

The Congressional farm bloc group says in effect of this plan—"He wants to ruin the small family farmer."

The eight "guidelines" presently specified in the law include:

1. The supply of the commodity in relation to the demand therefor.
2. The price levels at which other commodities are being supported, and, in the case of feed grains, the feed values of such grains in relation to corn.
3. The availability of funds.
4. The perishability of the commodity.
5. The importance of the commodity to agriculture and the national economy.
6. The ability to dispose of stocks acquired through a price support operation.
7. The need for offsetting temporary losses of export markets and
8. The ability and willingness of producers to keep supplies in line with demand.

Olin Mathieson Names Stanley W. Koenig Advertising Director

NEW YORK—Stanley W. Koenig has been promoted to director of advertising for Olin Mathieson Chemical Corp., it has been announced by Thomas S. Nichols, chairman, and Stanley de J. Osborne, president. Mr. Koenig had been an assistant director of advertising.

He will be responsible for formulating and recommending advertising and sales promotion policies and advising the corporation's divisions on all matters relating to advertising and sales promotion. He will also have responsibility for the corporate advertising program.

Mr. Koenig joined Olin Industries, Inc., in 1948, as a member of its advertising department. In 1949 he was named assistant advertising and promotion manager and in 1950 was named Olin Industries' publicity manager. In 1953 he became assistant to the vice president for sales and in 1955, shortly after the merger of Olin Industries and Mathieson Chemical Corp. into Olin Mathieson, he was appointed an assistant director of advertising.

Olin Mathieson is represented by ten advertising agencies. Principal among these are Cunningham & Walsh, Inc.; D'Arcy Advertising Co.; Doyle Kitchen & McCormick; Fuller & Smith & Ross, Inc., and McCann-Erickson, Inc.

Contracts Awarded for Wisconsin Spray Project

MADISON, WIS.—Aerial spraying of 171,400 acres in Wisconsin for control of jack pine budworms was scheduled to start this week, following awarding of a $212,000 contract for the work. The contract went to Interstate Services, Vancouver, Wash., for chemicals, and Richardson Aviation Co., Yakima, Wash., for planes. The price averaged out at $1.24 an acre for spraying the area with 12½% DDT solution.

for richer sales fields this fall...

Croplife announces FOUR* special emphasis ISSUES devoted to fall fertilization

and maintenance of pasture and range lands

*editorially tailored to 4 crop-areas to assure top advertising impact

Now! For the first time! Croplife offers four special emphasis issues covering fall fertilization and pasture maintenance. Four hard-hitting issues to pinpoint the situation in four crop-areas. Each special-emphasis issue will be a complete report —editorially tailored to the crop-area it will reach. That means you can tailor-make your advertising message for maximum impact and effectiveness. The map above shows the states included in each of the four regional distributions . . . the dates at left are those of the issues. Plan now to hit all or any combination of these regions with your sales story. Your message will be in the "good company" of sound editorial copy.

July 15, South
July 22, Midwest
July 29, West
August 5, Northeast

—here's why your ad will sell—→

iamond Black Leaf ppoints Five to ales Positions

CLEVELAND — Appointment of e men to sales positions for Diaond Black Leaf Co., Cleveland, as announced June 6 by Emil C. erdes, manager of commercial oducts.

Norman D. Thomsen, salesman in e Midwest sales district for the st two years, is now staff assistant commercial sales in the company's neral sales office, Cleveland.

Edward R. Luoma and Wayne H. own have been named salesmen in e company's Midwest district, with adquarters at Des Moines.

Harold A. Branson, for the past years sales representative for andard Oil Co. of Indiana, Fargo, D., is now sales supervisor for ack Leaf's eastern sales district, chmond, Va.

New southern sales district, Montgomery, Ala., appointee is Billy E. Hightower.

Mr. Thomsen came to Diamond Black Leaf in 1955 from Geigy Agricultural Chemical Co. where he was a salesman. He also has sales and field experience with the Ralston Purina Co., St. Louis.

Mr. Luoma, for nine years prior to joining Black Leaf, was a merchandising specialist for Midland Cooperatives, Inc., Minneapolis. Mr. Town, who will cover the Ohio and Kentucky area for the company's commercial products division, operated his own pest control business at Madison, Wis., for the past nine years.

Mr. Branson for many years was self-employed in the crop spraying business. He worked as a salesman for Sexauer & Co., Brookings, S.D., for several years prior to his joining Standard Oil Co. of Indiana. Mr. Hightower has worked for the past five years as a field serviceman for the Spray Application Division of Delta Airlines.

Restoration of Cut in Funds For Soil Bank Is Uncertain

By JOHN CIPPERLY
Croplife Washington Correspondent

WASHINGTON—Whether or not funds will be provided for the acreage reserve program of the soil bank next year is anyone's guess.

The House recently denied funds for the acreage reserve program next year. Politically, this was labeled as a "spite move" on the part of the Democratic majority in that chamber.

However, influential Republican members of the House agriculture appropriations subcommittee have expressed confidence that the cut would be restored by the Senate and that the House would accept the Senate version in conference.

But a leader in the Senate doesn't hold this view. He said that if the House vote reflected Democratic policy, then it seems probable that the cut would be upheld in the Senate.

One thing is certain at present. The vote in the House again shows the bad split in the farm bloc, a former union of Congressmen from cotton, wheat and corn producing states. The vote mostly followed party lines.

Still cotton economy problems may persuade the Senate to reverse House action. U.S. Department of Agriculture analysts note that the loss of acreage reserve funds for fiscal 1958 could mean lower price supports for cotton then. This is because the absence of an acreage reserve plan for cotton might increase its supply. This may cause the Democrats to change their minds about killing the acreage reserve program.

The soil bank is now in the peculiar position of being supported by Ezra Benson, secretary of agriculture, who originally opposed it, and of being rejected by Democrats who first sponsored it.

There are critics of the soil bank within USDA who at first saw it as a three-year program which might bring about a sharp reduction in the three big surplus crops—wheat, corn and cotton. Now they are frightened that political pressures may build up to a point where Congress may try to make the soil bank a continuing project.

Potato Interests Speak

Potato farming interests now want their crop made a soil bank commodity. Recently Sen. Richard Neuberger (D., Ore.) noted that row crops had not been given a place in the price support program, indicating that he might sponsor potatoes as a soil bank crop.

The final decision on the acreage reserve cut may hinge on the economy drive in Congress. This involves a soil bank budget request for fiscal 1958 of more than $3 billion. The Senate may kill the acreage reserve program in the drive to cut government spending.

An examination of the results of the soil bank does not show any substantial reduction of some of the crops affected by bounty payments to farmers. Rather the payments appear to be driving farmers into substitute crops, thereby creating other surpluses. Witnesses who testified before the House subcommittee on small business said that the soil bank had driven basic crop farmers into the poultry, egg and broiler business, thereby adding to the problems of over-production of broilers.

And so the pros and cons for funds for the acreage reserve go, with the cons having the edge at the moment. Observers point out that the soil bank carried political appeal in 1956, but it is now boomeranging in a most unexpected way. Many quarters believe most members of Congress would appreciate a quiet demise of the soil bank.

John A. Layton In New AACCO Post

NEW YORK—John A. Layton, formerly superintendent of the American Agricultural Chemical Co. Baltimore works, has been transferred to the production department of the firm's New York office. Harry M. Rau, former assistant superintendent, Carteret works, replaces Mr. Layton in Baltimore.

PURDUE AGRONOMY DAY

LAFAYETTE, IND.—Soil fertility and small grains will be emphasized at Purdue University's annual agronomy field day June 20. Effects of nitrogen fertilizer on wheat, phosphate and potash on wheat, crop rotations, rock phosphate on small grain, nitrogen fertilizer on turf, irrigation and stage of cutting of grasses will be viewed.

EACH ISSUE A COMPLETE REPORT— DESIGNED TO BOOST FALL SALES!

Why These Special Emphasis Issues? . . .
Croplife's editors have long felt the need for placing extra emphasis on the marketing advantages and profit opportunities of fall fertilization and pasture and range maintenance. They sense the need for a campaign to increase fall application to help level-off consumer demand . . . to reduce the spring rush and subsequent shortage of materials. The immediate response to the initial issue on this subject published in July, 1956, proved the value of the issue.

The Need for Four Complete Issues . . .
Croplife's first Fall Fertilization coverage appeared in a Midwest Marketing Issue—which limited somewhat the scope of the contents. The success of the initial attempt pointed up the need for specialized coverage in each crop area—South, West, Midwest and Northeast. Four tailor-made issues will bring specialized information to each of these regions.

Editorial Content Paves the Way . . .
Editorial material is designed to be useful to *all* segments of the industry—manufacturers, distributors and retailers—in giving fall sales a big push this year. Much of the copy is planned for use in actual over-the-counter sales talks with farmers. Some may be adapted for bulletin board use. Other material can be utilized by dealers in local newspaper advertisements or direct mail campaigns. Plans call for a "question-and-answer" feature; state recommendations for fall fertilization and maintenance of pastures; articles by authorities on fertilization, weed and brush control, insect control and the economics involved. They all point toward the same goal: INCREASED FALL SALES!

Pinpoint Your Advertising Message . . .
This makes it possible—by picking appropriate issues—to key your message to *your* area of marketing interest—to your prospects. This close tie-in with editorial material will give your advertisements the greatest possible impact. It will deliver your sales messages to your prospects—*all* the way down the marketing line—at the right time . . . it will help them map out plans for increased fall sales of *your products.* Here's an opportunity for you to present your specific fall sales story . . . to point to the things you are doing—the sales-aids you offer—to help distributors and dealers sell.

Reader-Response Assured . . .
After reading the 1956 version of this new special emphasis series, many firms and individuals urged Croplife to make this an annual special emphasis project. Requests for extra copies of the July 23, 1956, Croplife came in at an unprecedented rate. Within two weeks, the entire supply of reserve copies had been exhausted . . . many requests could not be filled.

Make Your Plans Now . . .
Make plans now to take advantage of this outstanding fall fertilization series of special emphasis issues. Here's an unusual opportunity to tie-in your sales message with complete news and feature coverage of a timely and important subject. Contact the Croplife office nearest you for complete details and any service Croplife's sales representatives can offer.

HERE ARE THE CLOSING DATES
JULY 15, South Marketing Issue, CLOSES JULY 1
JULY 22, Midwest Marketing Issue, CLOSES JULY 8
JULY 29, West Marketing Issue, CLOSES JULY 15
AUGUST 5, Northeast Marketing Issue, CLOSES JULY 29

Croplife

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July 22 ..... page(s)
July 29 ..... page(s)
Aug. 5 ..... page(s)

Firm .....
Address .....
City ..... Zone..... State.....
Signed .....

Croplife

A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Northeastern states.

"Heavier Fertilization" Brings Bad Connotation

The term "heavier fertilization," innocent phraseology in itself, has come to have an unfortunate connotation in the minds of a wide segment of the public. It is frequently associated with overproduction, and thought of as being a prime cause of farm surpluses.

This is a matter that needs correcting from the standpoint of both the prestige of the plant food industry and the clearing up of an important point as to the economics of fertilizer use.

In view of the U.S. Department of Agriculture's advocating increased efficiency on the farm to get ahead of the well-known "cost-price squeeze" on agricultural income, it seems odd that USDA should at the same time use the term "heavier fertilization" as explanation for the failure of this program or that which was designed to cut down on surpluses. Regardless of the original intent, the term has come to connote a roguish and improper practice designed to defeat the objectives of governmental programs to the advantage of the plant food industry. Because of this unfortunate association of ideas, the trade would like to see a discontinuance of the use of "heavier fertilization" by USDA.

Dr. Russell Coleman, executive vice president of the National Plant Food Institute, Washington, D. C., commenting on the subject, had this to say:

"It is my understanding that the Department of Agriculture has been advocating increased efficiency on the farm. This is the basis on which the Secretary has projected many of his programs. Since the land-grant colleges are recommending that farmers use at least twice as much fertilizer as they are applying to the soil, there is considerable area for improved efficiency by increasing fertilizer consumption.

"Our institute program is pitched primarily on cutting the farmer's production costs and improving his position, not through increasing the total units of farm commodities, but by allowing him to make more money from fewer units produced cheaper. We understood that this program had the concurrence of the USDA. It seems to me that the term 'heavier fertilization' should not be used in referring to current fertilization practices.

"The 1954 agricultural census shows that something less than thirty percent of the cropland and pastures receive fertilizers and even that land which is fertilized is receiving on an average of only about half that recommended by agricultural authorities. Until farmers use more than their authorities recommend, 'heavier fertilization' is not the proper connotation. It occurs to me that the department is doing double talk in advocating efficient farming on the one hand and implying the farmer is defeating agricultural programs by using heavy fertilization."

Perhaps people in the trade might have suggestions for new terminology. Any ideas? Maybe something like "Intelligent Fertilization" would make sense. One could say "Economical Application" of fertilizer, but that immediately connotes skimpy use, which is certainly not the idea to get across. Someone, somewhere must have the right combination of words that will fill the bill. Croplife would be happy to act as clearing house for such suggestions. How about sending in your ideas?

Mr. Benson Speaks Against Government Interference

The paradox of corn belt farmers apparently desiring less interference from governmental controls and the actual trend going in the other direction was discussed at some length by Ezra Taft Benson, Secretary of Agriculture, in a recent talk before the Iowa State Club in Chicago.

He pointed out that although more than 61% of the corn farmers who voted in last fall's referendum expressed a preference for greater individual freedom to plant, along with more flexibility of price supports, their desire fell just a little short of the required two-thirds majority. This has made it necessary for all corn farmers to continue under a program which the majority of them have disapproved, he said.

The Secretary discussed the situation further:

"Clearly the corn farmers have given leadership in the direction of freedom and enterprise, the institutions which have made America great.

"Do we lack the courage to strike a legislative blow for freedom when the people directly concerned have, in effect, requested it?

"We have heard, until now, that economic freedom is lost because the people most concerned bargain it away in exchange for security. The leaders of the people, we are told, cannot stand against the strong popular urge for what is considered to be economic security. That this does in fact occur I readily acknowledge.

"But how shall we then explain a circumstance in which the people themselves request less government interference, but their government will not relax its paternalistic grip?

"We have come a far way indeed, in this land of liberty, when we continue to impose on a particular group of farmers, against the will of the majority, control programs which do not control, and support programs which pile up surpluses and lose markets.

"There are more than 200 farm products for which we are authorized to provide price supports. For six of these, corn among them, programs are in effect to control production and to support prices according to a legal formula.

"These six commodities bring in only 25% of our farm income. Yet for these six commodities, surpluses are greater, costs are higher, infringements on individual liberty are more extensive, international relations are placed in greater jeopardy, and farmer complaints are more vociferous than for all the other of the 200 commodities combined.

"Experience has demonstrated the shortcomings of the present control programs. Farmers who produce certain commodities, such as soybeans and livestock, have demonstrated that realistic pricing can build markets and increase net income.

"Half the corn farmers choose to ignore the supposed benefits of the control program. They plant in excess of their allotments.

"Corn farmers have asked, in a referendum, that the paternalistic grip of government be relaxed. Is there, then, any good reason for maintaining the corn program in its present form?

"The price support program for basic commodities was originally designed to combat a general depression, and had considerable justification on that basis. The program was overhauled during the war for the purpose of expanding production, a need which it served in acceptable fashion.

"Our present need is not that of combatting a general depression, nor of stimulating production to meet the demands of war. Our need is for agricultural adjustments to accommodate the tremendous technological revolution through which agriculture is passing."

Quote

"Just before World War II, only about 25% of farm production supplies—fertilizers, seeds, feeds—came from urban-industry sources. Now, farmers get more than 60% of these supplies from cities and factories. With the march of technology, the percentage might reach 75 or more before 1975."—True D. Morse, Under Secretary of Agriculture.

Croplife's Home Office

Croplife

BPA — *Member of Business Publications Audit*

NBP — *Member of National Business Publications*

CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is $5 for one year ($8 a year outside the U.S.). Single copy price, 25¢.

LAWRENCE A. LONG
Editor

DONALD NETH
Managing Editor

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MEETING MEMOS

June 20-22—Summer Meeting, University of Georgia Agronomists and Georgia Section, American Society of Agronomy, Tidewater Experiment Station, Fleming, Ga.

June 24-27—Canadian Societies of Agronomy and Soil Science, Vancouver, British Columbia.

June 29—Del-Mar-Va Peninsula Fertilizer Assn., 36th Annual Convention, George Washington Hotel, Ocean City, Md.

July 1-12—Summer Meetings, Georgia Plant Food Educational Society, July 1, E. O. Cabiness Farm, Oglethorpe County; July 9, A. C. Ewing Farm, Newton County; July 11, H. D. Burton Farm, Thomas County; July 12, Sam Neville Farm, Bulloch County; J. Fielding Reed, 710 Mortgage Guarantee Bldg., Atlanta 3, Ga., Secretary-Treasurer.

Sept. 24-25—New England Fertilizer Conference, Bald Peak Colony Club, Melvin Village, N.H.

Oct. 18—Association of American Fertilizer Control Officials, (States Relations Committee, 8 p.m. Oct. 17), Shoreham Hotel, Washington, D.C., B. D. Cloaninger, Box 392, Clemson, S.C., Secretary-Treasurer.

Oct. 31-Nov. 1—Second Annual Southern Fertilizer Conference and Second Annual Southern Soil Fertility Conference, Dinkler Plaza Hotel, Atlanta, Ga.

EDITOR'S NOTE—The listings above are appearing in this column for the first time this week.

June 11-15—Western Plant Board, Denver, Col.

June 17-19—Fifteenth Annual Convention of the Association of Southern Feed and Fertilizer Control Officials, Dinkler-Tutwiler Hotel, Birmingham, Ala., Bruce Poundstone, Kentucky Agricultural Experiment Station, Lexington, Ky., Secretary-Treasurer.

June 18-20—Pilot Plant Demonstration of Developments in Fertilizer Technology, Tennessee Valley Authority, Wilson Dam Laboratories, Sheffield, Ala.

June 18-20—Northeastern Branch, American Society of Agronomy, Summer Meeting, University of Massachusetts.

June 23-26—American Society of Agricultural Engineers, Golden Anniversary meeting, Michigan State University, East Lansing, Mich.

June 24-28—Agricultural Dealers Workshop, Louisiana State University, Baton Rouge.

June 26—North Central States Association of Dairy, Food, Drug, Feed, Fertilizer and Pesticide Officials, Annual Meeting, Sheraton Martin Hotel, Sioux City, Iowa.

June 26-28—Eighth Annual Fertilizer Conference of the Pacific Northwest, Benson Hotel, Portland, Ore. R. R. Bertramson, Washington State College, Pullman, Wash., chairman.

June 26-28—Pacific Branch, Entomological Society of America, 41st Annual Meeting, Multnomah Hotel, Portland, Ore., H. H. Keifer, 1112 Swanston Drive, Sacramento 14, Cal., Secretary-Treasurer.

July 4-5—Alabama Seedsmen's Assn., Battle House, Mobile, Ala.

July 10-14—Plant Food Producers of Eastern Canada, Manoir Richelieu, Murray Bay, Quebec.

July 11-12—Great Plains Anhydrous Ammonia Meeting, Kansas State College, Manhattan, Kansas.

July 17-19—Southwestern Fertilizer Conference and Grade Hearing, Buccaneer Hotel, Galveston, Texas.

July 30-31—Fertilizer Meetings and Experiment Station Tours, Auburn, Ala. and Thorsby, Ala., Sponsored by the Alabama Agricultural Experiment Station and Alabama Soil Fertility Society.

Aug. 13-14—Ohio Pesticide Institute, Summer Meeting, Ohio Agricultural Experiment Station, Wooster, Ohio, J. D. Wilson, Ohio Agricultural Experiment Station, Secretary.

Aug. 14—Connecticut Agricultural Experiment Station Field Day, Mt. Carmel, Conn. Dr. James G. Horsfall, New Haven, director.

Aug. 28-31—Soil Conservation Society of America, Annual Convention, Asilomar, Cal.

Sept. 4-6—National Agricultural Chemicals Assn., Annual Meeting Essex & Sussex, Spring Lake, N. J., L. S. Hitchner, 1145 19th St. N. W., Washington 6, D. C., Executive Secretary.

Sept. 5-6—Great Lakes States Anhydrous Ammonia Meeting, Michigan State University, East Lansing, Mich.

Sept. 8-15—International Congress of Crop Protection, Hamburg, Germany.

Oct. 2-4—Eleventh annual Beltwide Cotton Mechanization Conference, Shreveport, La.

Oct. 3-5—Pacific Northwest Plant Food Assn., Annual Convention, Sun Valley, Idaho, Leon S. Jackson, Lewis Bldg., Portland 4, Ore., Secretary.

Oct. 7-8—Western Agricultural Chemicals Assn., Fall Meeting, Villa Hotel, San Mateo, Cal., C. O. Barnard, 2466 Kenwood Ave., San Jose 28, Cal., Executive Secretary.

Oct. 14—Sixth Annual Sales Clinic of the Salesmen's Assn., American Chemical Society, Hotel Roosevelt, New York.

Oct. 17—Conference on Chemical Control Procedures for Industry Chemical Control Analysts, Shoreham Hotel, Washington, D.C. Sponsored by National Plant Food Institute.

Oct. 29-30—Seventh Annual Northwest Garden Supply Trade Show of Oregon Feed & Seed Dealers Assn., Portland, Ore. Masonic Temple.

Oct. 29-31—Entomological Society of Canada and Entomological Society of Alberta, Annual Meetings, Lethbridge, Alberta.

Nov. 3-5—California Fertilizer Assn. 34th Annual Convention, St. Francis Hotel, San Francisco. Sidney H. Bierly, General Manager, 475 Huntington Drive, San Marino 9, Cal.

Nov. 6-8—Fertilizer Industry Round Table, Sheraton Park Hotel, Washington, D.C.

Nov. 17-19—National Fertilizer Solutions Assn., Annual Convention, Netherland-Hilton Hotel, Cincinnati, Muriel F. Collie, 2217 Tribune Tower, Chicago 11, Ill.

Dec. 1-3—Southern Seedsmen's Assn., Jung Hotel, New Orleans.

Dec. 2-5—Entomological Society of America, 5th Annual Meeting, Hotel Peabody, Memphis, Tenn., R. H. Nelson, 1530 P St., N.W., Washington 5, D.C., Executive Secretary.

Dec. 2-5—Cotton States Branch, Entomological Society of America, 32nd Annual Meeting, Hotel Peabody, Memphis, Tenn., M. E. Merkl, Box 202, Leland, Miss., Secretary-Treasurer.

Dec. 9-12—Chemical Specialties Manufacturers Assn., Hollywood Beach Hotel, Hollywood, Fla.

Dec. 10-12—North Central Weed Control Conference, 14th Annual Meeting, Hotel Savory, Des Moines, Iowa. Lyle A. Derscheid, agronomy department, South Dakota State College, Brookings, Program Chairman.

Dec. 11-13—Agricultural Ammonia Institute, Seventh Annual Meeting, Hotel Marion, Little Rock, Ark., Jack F. Criswell, Claridge Hotel, Memphis, Executive Vice President.

Dec. 12-13—Beltwide Cotton Production Conference, Hotel Peabody, Memphis, Tenn.

1958

Jan. 7-8—Texas Fertilizer Conference, Texas A&M, College Station, Texas.

Jan. 13-15, 1958—Weed Society of America and Southern Weed Conference, joint meeting. Peabody Hotel, Memphis, Tenn.

Jan. 21-23—California Weed Conference, San Jose, Cal.

Feb. 13-14—Agronomists-Industry Joint Meeting, Edgewater Beach Hotel, Chicago, sponsored by the Middle West Soil Improvement Committee, Z. H. Beers, 228 N. LaSalle St., Chicago 1, Ill., Executive Secretary.

March 4-5—Western Cotton Production Conference, Hotel Cortez, El Paso, Texas, Conference Sponsored by the National Cotton Council and the Five State Cotton Growers Assn.

July 18-19—Southwest Fertilizer Conference and Grade Hearing, Buccaneer Hotel, Galveston, Texas.

HEADS SUBSTATION

STATE COLLEGE, N. M.—Dr. Ed Clark, soil scientist with the Green Giant Co., Le Sueur, Minn., has been appointed superintendent of New Mexico A&M's southeastern substation at Artesia, A. S. Curry, associate director of the A&M experiment station has announced. Dr. Clark succeeds Paul Torrell who recently resigned as superintendent. At the 160-acre southeastern substation, Dr. Clark will supervise and conduct agricultural research, chiefly on problems of soil fertility, plant nutrition and crop varieties.

Classified Ads

Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15¢ per word; minimum charge $2.25. Situations wanted, 10¢ a word; $1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, care of this office, 20¢ per insertion additional charged for forwarding replies. Commercial advertising not accepted in classified advertising department. Advertisements of new machinery, products and services accepted for insertion at minimum rate of $10 per column inch.

All Want Ads cash with order.

FOR FAST ACTION AND RESULTS try Croplife's CLASSIFIED ADVERTISING

Manager Resigns

LAWRENCE, KANSAS—Henry Freeman, manager of the Farmers Co-op Assn., fertilizer dealer here, has resigned to take a job as salesman in the Kansas area for the Behlen Manufacturing Co., of Columbus, Neb. Officers of the co-op have decided not to hire a permanent manager until after harvest. Larry Lefholz of Lawrence has been appointed temporary manager. He has served as office manager of the co-op since November.

LAND ACQUISITION

CHICAGO—Link-Belt Co. has announced the acquisition of 41 acres of land about 11 miles south of Atlanta, Ga., as a possible future plant site. No specific plans have as yet been made regarding the use of the site which is located on the Central of Georgia Railroad, at the intersection of Morrow Industrial Blvd. and Route 54 in Clayton County.

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U. S. Rubber Co., Naugatuck Chem. Div.
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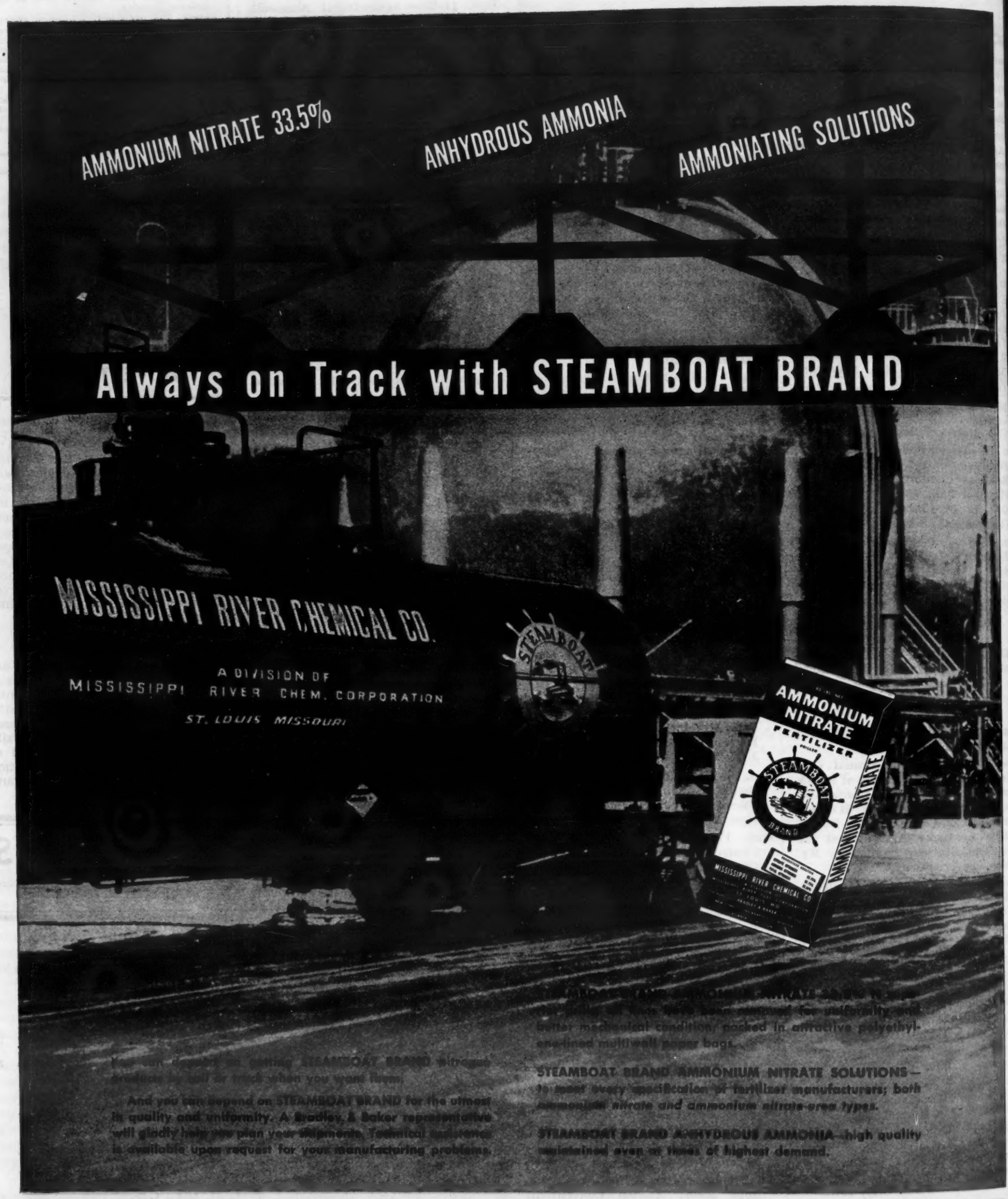
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